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STIC Database Tracking Number: 112348

To: Karen A Lacourciere

Location: REM-2D15

Art Unit: 1635

Wednesday, January 21, 2004

Case Serial Number: 09/423035

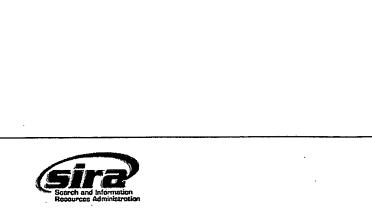
From: Beverly Shears Location: Remsen Bldg.

RM 1A54

Phone: 571-272-2528

beverly.shears@uspto.gov

Search Notes





112348

From:

Lacourciere, Karen

Sent:

Friday, January 16, 2004 2:13 PM

To:

STIC-Biotech/ChemLib

Subject:

Sequence search 09/423,035

Please search SEQ ID NO:122 and 121 for 09/423,035 in the commercial databases. Please length limit the search to hits less than 100 nucleotides in length.

Thanks-Karen

Karen A. Lacourciere Ph. D. Remsen 2D15 GAU 1635 (571) 272-0759 CREZ

Searcher:
Phone:
Location:
Date Picked Up:
Date Completed:
Searcher Prep/Review:
Clerical:
Online time:

TYPE OF SEARCH:
NA Sequences:
AA Sequences:
Structures:
Bibliographic:
Litigation:
Full text:
Patent Family:
Other:

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STN:	
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DRLink:	
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PTO-1590 (9-90)

FILE 'REGISTRY' ENTERED AT 12:29:20 ON 21 JAN 2004 37479 S RGGCTAGC[HT]ACAACGA/SQSN L1

37 S L1 AND SQL=<20 L7

FILE 'HCAPLUS' ENTERED AT 12:39:58 ON 21 JAN 2004 26 S L7 L8

ANSWER 1 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:1007150 HCAPLUS

Antisense oligonucleotides against the PIM1 gene TITLE:

for use in analgesia

INVENTOR(S): Altan, Oezlem; Kurreck, Jens; Gruenweller,

Arnold; Erdmann, Volker

Gruenenthal G.m.b.H., Germany PATENT ASSIGNEE(S):

PCT Int. Appl., 37 pp. SOURCE:

CODEN: PIXXD2 Patent

DOCUMENT TYPE:

LANGUAGE: German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

KIND DATE APPLICATION NO. DATE PATENT NO. -----______ ____ _____ WO 2003-EP6158 20030612 WO 2003106681 A2 20031224 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 2002-10226702 A 20020614 PRIORITY APPLN. INFO.: Antisense DNA for use in inhibiting expression of the PIM1 gene are described for use in the diagnosis and control of PIM1 kinase-mediated pain perception. Use of PIM1 antisense oligonucleotides injected into the spinal cord to increase the threshold of pain perception is demonstrated in rat.

638223-95-7 TΨ

RL: PRP (Properties)

(unclaimed nucleotide sequence; antisense oligonucleotides against the PIM1 gene for use in analgesia)

ANSWER 2 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN L8

ACCESSION NUMBER:

2003:971390 HCAPLUS

DOCUMENT NUMBER:

140:26917

TITLE:

Antibodies having specificity for

2'-deoxy-2'-C-allyl uridine-containing nucleic acids, and their use in detecting and monitoring therapeutic nucleic acid molecules in mammalian

biological samples

INVENTOR(S):

Radka, Susan; Beigelman, Leonid; Peter, Haeberli

PATENT ASSIGNEE(S):

Searcher : Shears 571-272-2528

SOURCE: U.S. Pat. Appl. Publ., 38 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

DATE APPLICATION NO. DATE PATENT NO. KIND _____ -----US 2003228590 Α1 20031211 US 2003-366191 20030212 US 2002-356298P P 20020213 PRIORITY APPLN. INFO.: The present invention relates to antibodies, antibody conjugates, and compns. thereof, methods of antibody synthesis, and applications of antibodies useful for the in vivo-detection of nucleic acid mols. containing 2'-deoxy-2'-C-allyl Uridine, such as in a clin. setting. The antibodies of the invention are also useful as screening agents which allow the selection of candidate therapeutic mols. for optimum bioavailability and/or activity, and as agents for cell and tissue specific-delivery of nucleic acid mols. The example discloses the development of a monoclonal antibody, CAIUSR, and its use for detection of the ANGIOZYME® ribozyme therapeutic in vivo. This antibody was developed for use in monitoring clin. trials of ANGIOZYME.

IT 633370-08-8

RL: PRP (Properties)

(unclaimed nucleotide sequence; antibodies having specificity for 2'-deoxy-2'-C-allyl uridine-containing nucleic acids, and their use in detecting and monitoring therapeutic nucleic acid mols. in mammalian biol. samples)

L8 ANSWER 3 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:855650 HCAPLUS

DOCUMENT NUMBER:

139:317479

TITLE:

Nucleic acid-based modulation of NOGO and NOGO

receptor interactions and genes for treatment

and/or diagnosis of associated diseases

INVENTOR(S):

Blatt, Lawrence; McSwiggen, James; Chowrira,

Bharat M.; Haeberli, Peter

PATENT ASSIGNEE(S):

Ribozyme Pharmaceuticals, Inc., USA

SOURCE:

U.S. Pat. Appl. Publ., 77 pp., Cont.-in-part of

Appl. No. PCT/US02/10512.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND						DATE			Al	PPLI	CATIO	o.	DATE			
US 2003203870 A1 WO 2001059103 A2 WO 2001059103 A3 WO 2001059103 C2						2003: 2001: 2002: 2002:	0816 0613			S 200 O 200			20030506 20010209			
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Searcher : Shears 571-272-2528

UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU,

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TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
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                                              US 2001-780533
                                                                 20010209
     US 2003060611
                         Α1
                              20030327
                                              US 2001-827395
     US 2003113891
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                              20030619
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     WO 2002081628
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                         C1
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              GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
              NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM,
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              SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
              SN, TD, TG
                                           US 2000-181797P
                                                              P 20000211
PRIORITY APPLN. INFO.:
                                                              B2 20010209
                                           US 2001-780533
                                           WO 2001-US4273
                                                              A2 20010209
                                           US 2001-827395
                                                              B1 20010405
                                           WO 2002-US10512
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                                           US 2001-315315P
                                                             Ρ
                                                                 20010828
     The present invention relates to nucleic acid mols., including
AB
     aptamers and antisense and enzymic nucleic acid mols., such as
     hammerhead ribozymes, DNAzymes, and antisense oligonucleotides,
     which modulate the expression of NOGO and NOGO receptor genes.
     particular, novel nucleic acid-based techniques are provided to
     inhibit the expression of NOGO-A, NOGO-B, and/or NOGO-C, NOGO-66
     receptor, and/or NI-250, myelin-associated glycoprotein, tenascin-R,
     and NG-2. The sequence of human NOGO and NOGO receptor genes are
     screened for accessible sites using a computer-folding algorithm;
     regions of the RNA that do not form secondary folding structures and
     contain potential enzymic nucleic acid mol and/or antisense
     binding/cleaving sites are identified. The nucleic acids of the
     present invention can be used to treat a patient having a condition
     associated with the level of NOGO or NOGO receptor.
IT
     613321-58-7
     RL: PRP (Properties)
         (unclaimed nucleotide sequence; nucleic acid-based modulation of
         NOGO and NOGO receptor interactions and genes for treatment
         and/or diagnosis of associated diseases)
     ANSWER 4 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
^{L8}
                           2003:731500 HCAPLUS
ACCESSION NUMBER:
                           139:224402
DOCUMENT NUMBER:
                           Enzymatic nucleic acid treatment of diseases or
TITLE:
                           conditions related to hepatitis C virus
                           infection
                           Blatt, Lawrence; McSwiggen, James; Roberts,
INVENTOR(S):
```

Searcher: Shears 571-272-2528

Elisabeth; Pavco, Pamela A.; MacJack, Dennis

PATENT ASSIGNEE(S):

USA

SOURCE:

U.S. Pat. Appl. Publ., 172 pp., Cont.-in-part of

U.S. Ser. No. 740,332.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

104

PATENT INFORMATION:

PATENT NO.	KIND	DATE		APPLICATION NO	DATE		
US 2003171311 AU 9851819	A1 A1	20030911		US 2001-817879 AU 1998-51819)	20010326 19980112	
AU 729657 US 2002082225	B2 A1	20010208 20020627		US 1999-274553	3	19990323	
AU 9939188 US 2002013458	A1 A1	19990916 20020131		AU 1999-39188 US 2000-504231	L	19990713 20000215	
US 2003125270 PRIORITY APPLN. INFO.	A1 :	20030703	US	US 2000-740332 1998-83217P	P	20001218 19980427	
				1998-100842P 1999-257608		19980918 19990225	
			US	1999-274553 2000-504231	A2	19990323 20000215	
			US	2000-611931 2000-740332	A2	20000707	
			AU US	1995-26422 1996-623891	A3 A	19950518 19960325	

ΑB This invention relates to enzymic nucleic acid mols. (e.g., ribozymes and DNAzymes) directed to cleave RNA species of hepatitis C virus (HCV) and/or encoded by the HCV. Specifically, the present invention describes enzymic nucleic acid mols. that would cleave in the conserved regions of the HCV genome. In a preferred embodiment, the invention features the use of an enzymic nucleic acid mol., preferably in the hammerhead, Inozyme (NCH), G-cleaver, Amberzyme, Zinzyme and/or DNAzyme motif, to inhibit the expression and/or replication of HCV. Chemical modifications in the sugar, base, and/or phosphate backbones of these enzymic nucleic acids is carried out to improve their stability. Such enzymic nucleic acid mols. may be used to treat diseases associated with HCV infection. Ribozymes in combination with interferons and polyethylene glycol interferons which have the potential to improve the effectiveness of treatment of HCV are also described. [This abstract record is one of two records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

IT 591261-44-8

RL: PRP (Properties)

(unclaimed nucleotide sequence; enzymic nucleic acid treatment of diseases or conditions related to hepatitis C virus infection)

ANSWER 5 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:568525 HCAPLUS

DOCUMENT NUMBER:

139:358722

TITLE:

Enzymatic nucleic acid treatment of diseases or

conditions related to hepatitis C virus

INVENTOR(S):

Blatt, Lawrence; McSwiggen, James; Roberts,

Searcher : Shears 571-272-2528

* * * * * * * * * *

Elisabeth; Pavco, Pamela A.; Macejack, Dennis

PATENT ASSIGNEE(S):

U.S. Pat. Appl. Publ., 198 pp. SOURCE:

CODEN: USXXCO

DOCUMENT TYPE:

LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

104

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO. DATE
US 2003125270	A1	20030703	US 2000-740332 20001218
AU 9851819	A1	19980611	AU 1998-51819 19980112
AU 729657	B2	20010208	
AU 9939188	A1	19990916	AU 1999-39188 19990713
US 2003125270	A1	20030703	US 2000-740332 20001218
PRIORITY APPLN. INFO.:	:		US 2000-740332 A 20001218
			AU 1995-26422 A3 19950518
			US 1996-623891 A 19960325

This invention relates to enzymic nucleic acid mols. (e.g., AΒ ribozymes and DNAzymes) directed to cleave RNA species of hepatitis C virus (HCV) and/or encoded by the HCV. Specifically, the present invention describes enzymic nucleic acid mols. that would cleave in the conserved regions of the HCV genome. In a preferred embodiment, the invention features the use of an enzymic nucleic acid mol., preferably in the hammerhead, Inozyme (NCH), G-cleaver, amberzyme, zinzyme and/or DNAzyme motif, to inhibit the expression and/or replication of HCV. Chemical modifications in the sugar, base, and/or phosphate backbones of these enzymic nucleic acids is carried out to improve their stability. Such enzymic nucleic acid mols. may be used to treat diseases associated with HCV infection. Ribozymes in combination with interferons and polyethylene glycol interferons which have the potential to improve the effectiveness of treatment of HCV are also described. [This abstract record is one of two records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

557143-59-6 ΙT

RL: PRP (Properties)

(unclaimed nucleotide sequence; enzymic nucleic acid treatment of diseases or conditions related to hepatitis C virus infection)

ANSWER 6 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN L8

ACCESSION NUMBER:

2003:309404 HCAPLUS

DOCUMENT NUMBER:

139:143909

TITLE:

Enzymatic nucleic acid treatment of diseases or

conditions related to levels of epidermal growth

factor receptors

INVENTOR(S):

Akhtar, Saghir; McSwiggen, James

PATENT ASSIGNEE(S):

Kuwait

SOURCE:

U.S. Pat. Appl. Publ., 199 pp., Cont.-in-part of

U.S. Ser. No. 401,063.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

104

PATENT INFORMATION:

571-272-2528 Searcher : Shears

PATENT NO.	KIND	DATE	APPLICATION NO. DATE
US 2003073207 US 6057156 AU 9851819	A1 A A1	20030417 20000502 19980611	US 2001-848754 20010503 US 1997-985162 19971204 AU 1998-51819 19980112
AU 729657 AU 9939188 US 6623962 PRIORITY APPLN. INFO.	B2 A1 B1	20010208 19990916 20030923	AU 1999-39188 19990713 US 1999-401063 19990922 US 1997-36476P P 19970131
PRIORITI APPLN. INFO.	•		US 1997-985162 A1 19971204 US 1999-401063 A2 19990922 AU 1995-26422 A3 19950518
			US 1996-623891 A 19960325

AB The present invention relates to nucleic acid mols., including antisense and enzymic nucleic acid mols., such as hammerhead ribozymes, DNAzymes, allozymes and antisense, which modulate the expression of epidermal growth factor receptor genes. The sequence of human epidermal growth factor receptor (EGFR) gene is screened for accessible sites using a computer-folding algorithm. the RNA that do not form secondary folding structures and contain potential enzymic nucleic acid mol. and/or antisense binding/cleavage sites are identified and used to design the complementary regions of the antisense and enzymic nucleic acid Two human cell lines, A549 lung carcinoma cells and SKOV3 ovarian carcinoma cells known to express medium to high levels of EGFR protein, are used in anti-proliferation assays for nucleic acid screening. The invention designs, synthesizes and tests nucleic acid mols. that target both EGFR and HER2 RNA in cell proliferation and RNA reduction assays for potential use in treating cancer. abstract record is one of two records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

IT 506617-43-2

RL: PRP (Properties)

(unclaimed nucleotide sequence; enzymic nucleic acid treatment of diseases or conditions related to levels of epidermal growth factor receptors)

L8 ANSWER 7 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:261042 HCAPLUS

DOCUMENT NUMBER:

138:282290

TITLE:

Methods and kits containing nucleic acid-based

enzymes for detection of single nucleotide

polymorphisms in diagnosis of diseases

INVENTOR(S):

Usman, Nassim; McSwiggen, James A.; Zinnen, Shawn; Seiwert, Scott; Haeberli, Peter; Chowrira, Bharat; Blatt, Lawrence; Vaish,

Narendra K.

PATENT ASSIGNEE(S):

USA

SOURCE:

U.S. Pat. Appl. Publ., 116 pp., Cont.-in-part of

U.S. Ser. No. 992,160.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO. DATE

Searcher :

Shears

571-272-2528

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                                                               Α
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                                            WO 2002-US35529 A2 20021105
     Nucleic acid sensor mols. and methods are provided for the detection
AB
     and amplification of signaling agents using enzymic nucleic acid
     constructs, including hammerhead enzymic nucleic acid mols.,
     inozymes, G-cleaver enzymic nucleic acid mols., zinzymes, amberzymes
     and DNAzymes. Also provided are kits for detection and amplification. The nucleic acid sensor mols., methods and kits
     provided herein can be used in diagnostics, nucleic acid circuits,
     nucleic acid computers, therapeutics, target validation, target
     discovery, drug optimization, single nucleotide polymorphism (SNP)
     detection, single nucleotide polymorphism (SNP) scoring, and
     proteome scoring as well as other uses described herein.
     504513-55-7
IT
     RL: PRP (Properties)
         (unclaimed nucleotide sequence; methods and kits containing nucleic
         acid-based enzymes for detection of single nucleotide
         polymorphisms in diagnosis of diseases)
     ANSWER 8 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
1.8
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Searcher: Shears 571-272-2528

2003:261013 HCAPLUS

ACCESSION NUMBER:

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DOCUMENT NUMBER:
                         138:292713
TITLE:
                         Enzymatic nucleic acid treatment of diseases or
                         conditions related to levels of epidermal growth
                         factor receptors
                         Akhtar, Saghir; McSwiggen, James
INVENTOR(S):
                         Kuwait
PATENT ASSIGNEE(S):
                         U.S. Pat. Appl. Publ., 113 pp., Cont.-in-part of
SOURCE:
                         U.S. Ser. No. 848,754.
                         CODEN: USXXCO
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         English
FAMILY ACC. NUM. COUNT: 104
PATENT INFORMATION:
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PRIORITY APPLN. INFO.:
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US 2002-251117

US 2002-277494

US 2003-440129P

A1 20020919

A1 20021021

20030115

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The present invention relates to nucleic acid mols., including
AB
     antisense and enzymic nucleic acid mols., such as hammerhead
     ribozymes, DNAzymes, allozymes and antisense, which modulate the
     expression of epidermal growth factor receptor genes.
IT
     503875-66-9
     RL: PAC (Pharmacological activity); PRP (Properties); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
         (enzymic nucleic acid treatment of diseases or conditions related
         to levels of epidermal growth factor receptors)
     ANSWER 9 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
T.R
ACCESSION NUMBER:
                            2003:76966 HCAPLUS
DOCUMENT NUMBER:
                            138:142441
TITLE:
                            Enzymatic nucleic acid peptide conjugates
                            Beigelman, Leonid; Azhayev, Alex; Azhayeva,
INVENTOR(S):
                            Elena
                            Ribozyme Pharmaceuticals, Inc., USA; Antopolsky,
PATENT ASSIGNEE(S):
                            Maxim
                            PCT Int. Appl., 88 pp.
SOURCE:
                            CODEN: PIXXD2
                            Patent
DOCUMENT TYPE:
LANGUAGE:
                            English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                                                APPLICATION NO.
                        KIND DATE
                                                                   DATE
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     WO 2003008628
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                                                US 2002-201389
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PRIORITY APPLN. INFO.:
OTHER SOURCE(S):
                            MARPAT 138:142441
     This invention features conjugates, compns., methods of synthesis,
     and applications thereof, including galactose, galactosamine,
     N-acetyl galactosamine, PEG, phospholipid, and human serum albumin
     (HSA) derived conjugates of nucleosides, nucleotides,
     non-nucleosides, and nucleic acids including enzymic nucleic acids,
     DNAzymes, allozymes, antisense, dsRNA, siRNA, triplex oligonucleotides, 2,5-A chimeras, decoys and aptamers.
ΙT
     493068-33-0
     RL: PRP (Properties)
         (unclaimed nucleotide sequence; enzymic nucleic acid peptide
         conjugates)
     ANSWER 10 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
                            2003:23421 HCAPLUS
ACCESSION NUMBER:
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Searcher: Shears 571-272-2528

138:84437

DOCUMENT NUMBER:

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Methods and kits containing nucleic acid-based
TITLE:
                                                     enzymes for detection of single nucleotide
                                                     polymorphisms in diagnosis of diseases
                                                     Usman, Nassim; McSwiggen, James A.; Zinnen,
INVENTOR(S):
                                                     Shawn; Seiwert, Scott; Haeberli, Peter;
                                                     Chowrira, Bharat; Blatt, Lawrence; Vaish,
                                                     Narendra
PATENT ASSIGNEE(S):
                                                     USA
                                                     U.S. Pat. Appl. Publ., 100 pp., Cont.-in-part of
SOURCE:
                                                     U.S. Pat. Appl. 2002 102,568.
                                                     CODEN: USXXCO
DOCUMENT TYPE:
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LANGUAGE:
                                                     English
FAMILY ACC. NUM. COUNT:
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PATENT INFORMATION:
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PRIORITY APPLN. INFO .:
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                                                                                                                         A 20021101
                                                                                     WO 2002-US35529 A2 20021105
          The present invention provides nucleic acid sensor mols. and methods
AB
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Searcher: Shears 571-272-2528

for the detection and amplification of signaling agents using

enzymic nucleic acid constructs. These include hammerhead enzymic nucleic acid mols., inozymes, G-cleaver enzymic nucleic acid mols., zinzymes, amberzymes and DNAzymes. Kits for detection and amplification and uses of the invention in diagnostics, nucleic acid circuits, nucleic acid computers, therapeutics, target validation, target discovery, drug optimization, SNP detection, SNP scoring, proteome scoring and other uses are disclosed.

IT 483392-16-1

RL: PRP (Properties)

(unclaimed nucleotide sequence; methods and kits containing nucleic acid-based enzymes for detection of single nucleotide polymorphisms in diagnosis of diseases)

L8 ANSWER 11 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:974509 HCAPLUS

DOCUMENT NUMBER: 139:46323

TITLE: Cellular uptake, distribution, and stability of

10 - 23 deoxyribozymes

AUTHOR(S): Dass, Crispin R.; Saravolac, Edward G.; Li,

Yang; Sun, Lun-Quan

CORPORATE SOURCE: Johnson and Johnson Research Laboratories,

Eveleigh, 1430, Australia

SOURCE: Antisense & Nucleic Acid Drug Development

(2002), 12(5), 289-299

CODEN: ANADF5; ISSN: 1087-2906

PUBLISHER: Mary Ann Liebert, Inc.

DOCUMENT TYPE: Journal LANGUAGE: English

The cellular uptake, intracellular distribution, and stability of AB 33-mer deoxyribozyme oligonucleotides (DNAzymes) were examined in several cell lines. PAGE anal. revealed that there was a weak association between the DNAzyme and DOTAP or Superfect transfection reagents at charge ratios that were minimally toxic to cultured Cellular uptake was analyzed by cell fractionation of radiolabeled DNAzyme, by FACS, and by fluorescent microscopic anal. of FITC-labeled and TAMRA-labeled DNAzyme. Altering DNAzyme size and chemical did not significantly affect uptake into cells. Inspection of paraformaldehyde-fixed cells by fluorescence microscopy revealed that DNAzyme was distributed primarily in punctate structures surrounding the nucleus and that substantial delivery to the nucleus was not observed up to 24 h after initiation of transfection. Incubation in human serum or plasma demonstrated that a 3'-inversion modification greatly increased DNAzyme stability $(t1/2 \approx 22 \text{ h})$ in comparison to the unmodified form (t1/2The 3'-inversion-modified DNAzymes remained \approx 70 min). stable during cellular uptake, and catalytically active oligonucleotide could be extracted from the cells 24 h posttransfection. In smooth muscle cell proliferation assay, the modified DNAzyme targeting the c-myc gene showed a much stronger inhibitory effect than did the unmodified version. The present study demonstrates that DNAzymes with a 3'-inversion are readily delivered into cultured cells and are functionally stable for several hours in serum and within cells.

IT 543745-67-1D, 5'-FITC labeled

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU
(Therapeutic use); BIOL (Biological study); USES (Uses)
 (cellular uptake, distribution, and stability of 10-23
 deoxyribozymes)

Searcher : Shears 571-272-2528

THERE ARE 34 CITED REFERENCES AVAILABLE 34 REFERENCE COUNT: FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

L8 ANSWER 12 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2002:927617 HCAPLUS

DOCUMENT NUMBER:

138:19530

TITLE:

Nucleic acid treatment of diseases or conditions

related to levels of Ras, HER2 and HIV

INVENTOR(S):

McSwiggen, James

CODEN: PIXXD2

PATENT ASSIGNEE(S):

Ribozyme Pharmaceuticals, Incorporated, USA PCT Int. Appl., 185 pp.

SOURCE:

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

104

PATENT INFORMATION:

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PRIORITY APPLN. INFO.:
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                                         US 2002-251117
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                                                           A1 20021021
                                         US 2003-440129P
                                                           P 20030115
     The present invention relates to nucleic acid mols., including
AB
     enzymic nucleic acid mols., such as DNAzymes (e.g. DNA enzymes,
     catalytic DNA), siRNA, aptamers, and antisense that modulate the
     expression of Ras genes such as K-Ras, H-Ras, and/or N-Ras, HIV
     genes such as HIV-1, and HER2 (c-erbB2) gene. The sequence of human
     HER2 or Ras genes were screened for accessible sites using a
     computer-folding algorithm. Regions of the RNA that do not form
     secondary folding structure and contain potential enzymic nucleic
     acid mol. and/or antisense binding/cleavage sites are identified.
     The sequences of c-Ki-ras, c-Ha-ras, HER2, and HIV RNA
     binding/cleavage sites are provided, as are the sequences of
     designed enzymic nucleic acid mols., e.g., hammerhead ribozymes,
     DNAzymes, inozymes, zinzymes, and Amberzymes. [This abstract record
     is one of two records for this document necessitated by the large
     number of index entries required to fully index the document and
     publication system constraints.].
     478129-01-0
ΙT
     RL: PRP (Properties)
        (unclaimed nucleotide sequence; nucleic acid treatment of
        diseases or conditions related to levels of Ras, HER2 and HIV)
     ANSWER 13 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
                          2002:828621 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                          138:314544
                          Oligonucleotide-mediated inhibition of hepatitis
TITLE:
                          B virus and hepatitis C virus replication
                          Blatt, Lawrence; Macejak, Dennis; McSwiggen,
INVENTOR(S):
                          James; Morrissey, David; Pavco, Pamela; Lee,
                          Patrice; Draper, Kenneth; Roberts, Elisabeth
                          Ribozyme Pharmaceuticals, Inc., USA
PATENT ASSIGNEE(S):
                          PCT Int. Appl., 387 pp.
SOURCE:
                          CODEN: PIXXD2
DOCUMENT TYPE:
                          Patent
                          English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
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PATENT INFORMATION:
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Searcher: Shears 571-272-2528

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AΒ
     The present invention relates to nucleic acid mols., including
     antisense and enzymic nucleic acid mols., such as hammerhead ribozymes, DNAzymes, Inozymes, Zinzymes, Amberzymes, and G-cleaver
     ribozymes, which modulate the synthesis, expression and/or stability
     of a hepatitis C virus (HCV) or hepatitis B virus (HBV) RNA and
     methods for their use alone or in combination with other therapies.
     In addition, nucleic acid decoy mols. and aptamers that bind to HBV
     reverse transcriptase and/or HBV reverse transcriptase primer
     sequences and methods for their use alone or in combination with
     other therapies, are disclosed. Oligonucleotides that specifically
     bind the Enhancer I region of HBV DNA are further disclosed. The
     present invention further relates to the use of nucleic acids, such
     as decoy and aptamer mols. of the invention, to modulate the
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expression of HBV genes and HBV viral replication. Furthermore, HBV animal models and methods of use are disclosed, including methods of screening for compds. and/or potential therapies directed against HBV. The present invention also relates to compds., including

enzymic nucleic acid mols., ribozymes, DNAzymes, nuclease-activating

compds. and chimeras such as 2',5'-adenylates, that modulate the expression and/or replication of HCV. [This abstract record is one of five records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

IT 491672-93-6

RL: PRP (Properties)

(unclaimed nucleotide sequence; oligonucleotide-mediated inhibition of hepatitis B virus and hepatitis C virus replication)

L8 ANSWER 14 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2002:822462 HCAPLUS

DOCUMENT NUMBER:

138:265678

TITLE:

Modulation of gene expression associated with

inflammation, proliferation and neurite

outgrowth using antisense and enzymic nucleic

acid-based technologies

INVENTOR(S):

Blatt, Lawrence; Chowrira, Bharat; Haeberli,

Peter; McSwiggen, James; Fosnaugh, Kathy Ribozyme Pharmaceuticals, Incorporated, USA

PATENT ASSIGNEE(S):

PCT Int. Appl., 317 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

12

PATENT INFORMATION:

						KIND DATE				APPLICATION NO. DATE							
	WO	2002								WO 2002-XC10512 2002040							
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA	, BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM	, DZ,	EC,	EE,	ES,	FI,	GB,	GD,
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	ΙN	, IS,	JP,	ΚE,	KG,	ΚP,	KR,	ΚŻ,
			LC,	LK,	LR,	LS,	LT,	LU,	LV,	MΑ	, MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,
			NO,	NZ,	OM,	PH,	PL,	PT,	RO,	RU	, SD,	SE,	SG,	SI,	SK,	SL,	ТJ,
			TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US	, UZ,	VN,	YU,	ZA,	ZM,	AM,	ΑZ,
			BY,	KG,	KZ,	MD,	RU,	ТJ,	TM								
		RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL	, SZ,	TZ,	UG,	ZM,	ZW,	ΑT,	BE,
			CH,	CY,	DE,	DK,	ES,	FI,	FR,	GB	, GR,	IE,	IT,	LU,	MC,	NL,	PT,
			SE,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM	, GA,	GN,	GQ,	GW,	ML,	MR,	NE,
			SN,	TD,	TG												
	US	2003	1138	91	A.	1	2003	0619			US 20	001-8	2739	5	2001	0405	
	US	2003	1190	17	Α.						US 20	002-1	5630	6	2002	0528	
	US	2003	1437	32	A.	1	2003	0731			US 20	002-2	2400	5	2002	0820	
	US	2003	1485	07	A:	1	2003	0807			US 20	002-2	2699	2	2002	0823	
	US	2003	1910	77	A.	l	2003	1009			US 20	002-2	3000	6	2002	0828	
PRIO	RIT	APP	LN.	INFO	. :					US	2001-	-8273	95	Α	2001	0405	
										US	2001-	-2944	12P	Ρ	2001	0529	
										US	2001-	-3153	15P	Р	2001	0828	
										US	2000-	-1817	97P	P.	2000	0211	
										US	2001-	-7805	33	A2	2001	0209	

AB The present invention relates to nucleic acid mols., including antisense, enzymic nucleic acid mols., and RNA interference mols., which modulate the expression of genes encoding prostaglandin D2 receptor, adenosine receptor A1, NOGO receptor, IkB protein kinase, and protein kinase PKR. Thus, nucleic acids encoding these products are scanned to identify targets for cleavage by designed

Searcher: Shears 571-272-2528

enzymic nucleic acids, such as hammerhead ribozymes, Inozymes, Zinzymes, DNAzymes, and Amberzymes. Chemical modifications in the sugar, base, and/or phosphate backbones of these enzymic nucleic acids is carried out to improve their stability. Inhibition of gene product expression may be used for treatment of diseases associated with said expression. [This abstract record is one of four records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

IT 484802-52-0

RL: PRP (Properties)

(unclaimed nucleotide sequence; modulation of gene expression associated with inflammation, proliferation and neurite outgrowth using antisense and enzymic nucleic acid-based technologies)

L8 ANSWER 15 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2002:698624 HCAPLUS

DOCUMENT NUMBER:

138:66656

TITLE:

Nucleic acid-based treatment of diseases or conditions related to West Nile virus infection

INVENTOR(S):
PATENT ASSIGNEE(S):

Blatt, Lawrence; McSwiggen, James A. Ribozyme Pharmaceuticals, Inc., USA

COURCE .

PCT Int. Appl., 495 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 9

PATENT INFORMATION:

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DATE
                        KIND
                               DATE
                                                APPLICATION NO.
     PATENT NO.
                         ____
                                _____
                                                _____
     WO 2002068637
                        A2
                               20020906
                                               WO 2001-XH48350 20011019
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
              LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
              TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
              MD, RU, TJ, TM
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              CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
              TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
              TD, TG
                                                WO 2001-US48350 20011019
     WO 2002068637
                                20020906
                         Α2
                                20030515
     WO 2002068637
                         C1
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
              CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,
              GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
              LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
              NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
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              CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
              TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
              TD, TG
PRIORITY APPLN. INFO.:
                                             US 2000-242411P P 20001020
                                             WO 2001-US48350 A 20011019
```

AB The present invention relates to nucleic acid mols. (e.g., ribozymes, DNAzymes, antisense oligonucleotides, triplex-forming oligonucleotides, 2-5A oligonucleotides, decoys) that modulate the expression and/or replication of West Nile Virus (WNV). Such enzymic and antisense nucleic acids can be used to diagnose and treat diseases associated with WNV infection, such as pancreatitis, encephalitis, myocarditis, meningitis, neurol. infection, hepatitis, liver failure, hepatocellular carcinoma, and cirrhosis. Thus, the sequence of human WNV was screened for accessible sites using a computer-folding algorithm; regions of the RNA that do not form secondary folding structures and contain potential enzymic nucleic acid and/or antisense binding/cleavage sites were identified. Enzymic nucleic acids mols. are designed that could bind each target and are individually analyzed by computer folding. Varying binding arm lengths can be chosen to optimize activity. Five different enzymic nucleic acid mols. of different motifs (hammerhead, inozyme, DNAzyme, Amberzyme, and zinzyme) show cleavage data with full-length or partially full-length, internally-labeled target RNA. enzymic nucleic acid mols. are effective against WNV RNA in vivo (HeLa cells) and in animal models (mice infected with WNV). abstract record is one of nine records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

IT 479786-61-3

AUTHOR(S):

RL: PRP (Properties)

(unclaimed nucleotide sequence; nucleic acid-based treatment of diseases or conditions related to West Nile virus infection)

L8 ANSWER 16 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:414955 HCAPLUS

DOCUMENT NUMBER: 137:121425

TITLE: A general strategy for effector-mediated control

of RNA-cleaving ribozymes and DNA enzymes Wang, Dennis Y.; Lai, Beatrice H. Y.; Sen,

Dipankar

CORPORATE SOURCE: Department of Molecular Biology & Biochemistry,

Simon Fraser University, Burnaby, BC, V5A 1S6,

Can.

SOURCE: Journal of Molecular Biology (2002), 318(1),

33-43

CODEN: JMOBAK; ISSN: 0022-2836

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB A novel and general approach is described for generating versions of RNA-cleaving ribozymes (RNA enzymes) and DNAzymes (DNA enzymes), whose catalytic activity can be controlled by the binding of activator mols. Variants of the RNA-cleaving 10-23 DNAzyme and 8-17 DNAzyme were created, whose catalysis was activated by up to .apprx.35-fold by the binding of the effector adenosine. The design of such variants was possible even though the tertiary folding of the two DNAzymes is not known. Variants of the hammerhead ribozyme were constructed, to respond to the effectors ATP and FMN. Whereas in conventional allosteric ribozymes, effector-binding modulates the chemical step of catalysis, here, effectors exercise their effect upon the substrate-binding step, by stabilizing the enzyme-substrate complex. Because such an approach for controlling the activity of DNAzymes/ribozymes requires no prior knowledge of the enzyme's

secondary or tertiary folding, this regulatory strategy should be generally applicable to any RNA-cleaving ribozyme or DNAzyme, natural or in vitro selected, provided substrate-recognition is achieved by Watson-Crick base-pairing.

IT 444035-98-7

RL: BSU (Biological study, unclassified); CAT (Catalyst use); PRP (Properties); BIOL (Biological study); USES (Uses)

(DNAzyme; design and properties of effector-mediated

aptamer-containing DNAzymes)

REFERENCE COUNT:

THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 17 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

51

ACCESSION NUMBER:

2002:171921 HCAPLUS

DOCUMENT NUMBER:

136:241681

TITLE:

Antisense oligonucleotides against vanilloid receptor 1 (VR1), therapeutic and diagnostic

uses, and screening method

INVENTOR(S):

Kurreck, Jens; Erdmann, Volker A.

PATENT ASSIGNEE(S): SOURCE:

Grunenthal Gmbh, Germany PCT Int. Appl., 76 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent German

LANGUAGE:

r. 1

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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DATE ...
                      KIND
                                            APPLICATION NO.
                                                              DATE
     PATENT NO.
                      ____
                             _____
                                            _____
                                            WO 2001-EP10081 20010831
    WO 2002018407
                       A2
                             20020307
    WO 2002018407
                       A3
                             20021003
    WO 2002018407
                       C2
                             20030515
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO,
             NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
             TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
             MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
             TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
             TD, TG
                                            DE 2000-10043674 20000902
     DE 10043674
                             20020321
                       Α1
                                            DE 2000-10043702 20000904
     DE 10043702
                             20020314
                       A1
    AU 2001095531
                       Α5
                             20020313
                                            AU 2001-95531
                                                              20010831
                             20030528
                                            EP 2001-976176
                                                              20010831
    EP 1313768
                       Α2
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
             PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     US 2004002473
                       A1 20040101
                                            US 2003-376341
                                                              20030303
PRIORITY APPLN. INFO.:
                                         DE 2000-10043674 A 20000902
                                         DE 2000-10043702 A 20000904
                                         WO 2001-EP10081 W 20010831
```

AB The invention provides antisense oligodeoxynucleotides against VR1, corresponding nucleotide constructs, cells containing the nucleotide constructs, pharmaceuticals and diagnostic substances, the use thereof in pain therapy, and methods for diagnosing symptoms related

to VR1 and identifying pain-modulating substances.

403777-66-2 IT

RL: PRP (Properties)

(Unclaimed; antisense oligonucleotides against vanilloid receptor 1 (VR1), therapeutic and diagnostic uses, and screening method)

ANSWER 18 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN $^{\text{L8}}$

ACCESSION NUMBER:

2002:122738 HCAPLUS

DOCUMENT NUMBER:

136:194272

TITLE:

Ribozymes and antisense oligonucleotides for the

APPLICATION NO. DATE

inhibition of gene expression by

calcium-activated chloride channel-1 gene CLCA-1

Thompson, James; McSwiggen, James; McKenzie, Timothy; Ayers, David; Szymkowski, David E.; INVENTOR(S):

Grupe, Andrew

PATENT ASSIGNEE(S):

Ribozyme Pharmaceuticals, Incorporated, USA;

Syntex (U.S.A.) LLC

SOURCE:

PCT Int. Appl., 152 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

DATE

LANGUAGE:

KIND

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

	WO 2002011674 WO 2002011674								W	O 20	01-U	70	20010809			
	WO 2002	AE,	AG,	AL,	AM,	AT,	AU,	AZ,						BZ,		
														FI,		
														KP,		
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,
		NO,	ΝZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TR,
						US,	UZ,	VN,	YU,	ZA,	ZW,	AM,	AZ,	BY,	KG,	KZ,
			RU,					~ =					057	7.00	D. 17	CIT
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	AT,	BE,	CH,
														NL,		
		-	-	Вυ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	١٠١١٠ ,	MR,	ΝĿ,	SN,
	110 2002	TD,		70.	1 .	2002	0402		гт	e 20	010	2701	6	2001	nana	
US 2003064946 A1 20030403 US 2001-927046 20010809 PRIORITY APPLN. INFO.: US 2000-224383P P 20000809																
AB Nucleic acid mols., including antisense and enzymic nucleic acid mols., such as hammerhead ribozymes, DNAzymes, and GeneBlocs, which													nich			
mods., such as nammerhead ribozymes, bhazymes, and deneblocs, which modulate the expression of calcium-activated chloride channels																
(CLCA1, CLCA2, CLCA3, and CLCA4) are provided. A target discovery																
target validation approach was used for finding genes that are														-		
involved in chronic mucous hypersecretion. The reporter system																
consists of a plasmid construct, termed pMUC5AC-EGFP, bearing a gene													gene			
coding for green fluorescent protein (GFP). The promoter region of													n of			
	the GFF															
	suffici	ent t	to d	irec	t ef	fici	ent	tran	scri	ptio:	n of	the	GFP	gen	e; tl	ne
	plasmid	als	o co:	ntai	ns ti	he n	eomy	cin (drug	res	ista	nce	gene	. T	ne c	ell
	line se	lect	ed a	s ho	st f	or t	hese	stu	dies	, NC	I-H2	92 (.	ATCC	CRL	-1848	3),
	is deri	ved :	from	a h	uman	lun	g mu	coep.	ider	moid	car	cino	ma.	Ar	iboz	yme
	library															
	binding															
	inducti															CLCAT
	as a re	gu1a	tor	or M	UC5A	C ex	pres	sion	. A	ntis	ense	, na	mmer	nead	,	

DNAzyme, NCH, amberzyme, zinzyme, and G-Cleaver ribosome binding/cleavage sites in CLCAl were identified. The nucleic acid mols. are individually analyzed by computer folding to assess whether the sequences fold into the appropriate secondary structure and to anneal to various sites in the RNA target. Those nucleic acid mols. with unfavorable intramol. interactions such as between the binding arms and the catalytic core are eliminated from consideration. Varying binding arm lengths can be chosen to optimize activity.

IT 400185-65-1

RL: PRP (Properties)

(unclaimed nucleotide sequence; ribozymes and antisense oligonucleotides for the inhibition of gene expression by calcium-activated chloride channel-1 gene CLCA-1)

L8 ANSWER 19 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:582042 HCAPLUS

DOCUMENT NUMBER:

135:175355

TITLE:

Nucleic acid reagents for inhibition of checkpoint kinase-1 gene expression for

therapeutic use

INVENTOR(S):

Fattaey, Ali R.; Jarvis, Thale; McSwiggen, James; Booher, Robert N.; Holman, Patricia S.

PATENT ASSIGNEE(S):

Ribozyme Pharmaceuticals, Inc., USA

SOURCE:

PCT Int. Appl., 115 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

study); USES (Uses)

PATENT INFORMATION:

	PATENT	KIND DATE					A:		э.	DATE						
	WO 2001 WO 2001						WO 2001-US3504						20010202			
	W:								BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,
		-												GD,		
		•	•	•							•			KZ,		
		LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TR,	TT,	TZ,
		UA,	UG,	US,	UZ,	VN,	YU,	ZA,	ZW,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,
		ТJ,														
	RW:	GH,	GM,	ΚE,	LS,	MW,	ΜZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	AT,	BE,	CH,
		•	•		•	-		-						NL,		
		•	BF,	ΒJ,	CF,	CG,	CI,	CM,	GA,	GN,	GW,	ML,	MR,	NE,	SN,	TD,
	TG															
US 2003087847 A1 20030508 US 2001-776474 20010202																
PRIORITY APPLN. INFO.: US 2000-179983P P 20000203 AB The present invention relates to nucleic acid mols., including																
AB																
	antisen															
	ribozym															on or
	the Chk															,
	treatme				er o	i ca	ncer	s in	clud	ing .	Lung	, br	east	, pr	osta	te and
	colorec			er.												
IT	190795-	31-4													_	

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological

Searcher: Shears 571-272-2528

(nucleotide sequence, antisense DNA inhibiting checkpoint kinase

gene expression; nucleic acid reagents for inhibition of checkpoint kinase-1 gene expression for therapeutic use)

ANSWER 20 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN L8

ACCESSION NUMBER:

CORPORATE SOURCE:

2001:186701 HCAPLUS

DOCUMENT NUMBER:

135:57661

TITLE:

Characterization in terms of the NUX rule of G-inserted mutant hammerhead ribozymes with high

level of catalytic power

AUTHOR(S):

Kuwabara, Tomoko; Warashina, Masaki; Kato, Yoshio; Kawasaki, Hiroaki; Taira, Kazunari Gene Discovery Research Center, National Institute of Advanced Industrial Science and

Technology (AIST), Tsukuba Science City,

305-8562, Japan

SOURCE:

Journal of Biochemistry and Molecular Biology

(2001), 34(1), 51-58 CODEN: JBMBE5; ISSN: 1225-8687 Springer-Verlag Singapore Pte. Ltd.

PUBLISHER: DOCUMENT TYPE:

Journal

LANGUAGE: English

Attempts using in vitro and in vivo selection procedures have been made to search for hammerhead ribozymes that have higher activities than the wild-type ribozyme and also to determine whether other sequences might be possible in the catalytic core of the hammerhead ribozyme. Active sequences selected in the past conformed broadly to the consensus core sequence except at A9, and no sequences were associated with higher activity than that of the hammerhead with the consensus core, an indication that the consensus sequence derived from viruses and virusoids is probably the optimal sequence. Recently, during construction of ribozyme expression vectors, we isolated a mutant hammerhead ribozyme, with an insertion of G between A9 and G10.1, that appeared to show significant activity. We, therefore, characterized kinetic properties of the G-inserted mutant ribozymes in terms of the NUX rule. We demonstrate that the NUX rule is basically applicable to the G-inserted ribozymes and, more importantly, one type of G-inserted ribozyme was very active with kcat value of 6.4 min-1 in 50 mM Tris-HCl (pH 8.0) and 10 mM MgCl2 at 37°C.

IT 345373-30-0 345373-31-1

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological

(characterization in terms of the NUX rule of G-inserted mutant hammerhead ribozymes with high level of catalytic power)

REFERENCE COUNT:

THERE ARE 91 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

ANSWER 21 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:48059 HCAPLUS

DOCUMENT NUMBER:

134:291623

TITLE:

In vitro-selected RNA cleaving DNA enzymes from a combinatorial library are potent inhibitors of

HIV-1 gene expression

AUTHOR(S):

Sriram, Bandi; Banerjea, Akhil C.

CORPORATE SOURCE:

Laboratory of Virology, National Institute of

Immunology, New Delhi, 110067, India

SOURCE: Biochemical Journal (2000), 352(3), 667-673

CODEN: BIJOAK; ISSN: 0264-6021

PUBLISHER: Portland Press Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

Selective inactivation of a target gene by antisense mechanisms is AB an important biol. tool to delineate specific functions of the gene product. Approaches mediated by ribozymes and RNA-cleaving DNA enzymes (DNA enzymes) are more attractive because of their ability to catalytically cleave the target RNA. DNA enzymes have recently gained a lot of importance because they are short DNA mols. with simple structures that are expected to be stable to the nucleases present inside a mammalian cell. The authors have designed a strategy to identify accessible cleavage sites in HIV-1 gag RNA from a pool of random DNA enzymes, and for isolation of DNA enzymes. A pool of random sequences (all 29 nucleotides long) that contained the earlier-identified 10-23 catalytic motif were tested for their ability to cleave the target RNA. When the pool of random DNA enzymes was targeted to cleave between any A and U nucleotides, DNA enzyme 1836 was identified. Although several DNA enzymes were identified using a pool of DNA enzymes that was completely randomized with respect to its substrate-binding properties, DNA enzyme-1810 was selected for further characterization. Both DNA enzymes showed target-specific cleavage activities in the presence of Mg2+ only. When introduced into a mammalian cell, they showed interference with HIV-1-specific gene expression. This strategy could be applied for the selection of desired target sites in any target RNA.

IT 334544-13-7 334544-14-8

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(RNA-cleaving DNAzymes from combinatorial library are potent inhibitors of HIV-1 gene expression)

REFERENCE COUNT:

THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 22 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

12

ACCESSION NUMBER:

2000:725799 HCAPLUS

DOCUMENT NUMBER:

133:291920

TITLE:

Method for identifying antisense DNA-,

ribozyme-, or DNAzyme-accessible binding sites

on RNA

INVENTOR(S):

Rossi, John; Riggs, Arthur; Scherr, Michaela

PATENT ASSIGNEE(S): City of Hope, USA

SOURCE:

PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE
WO 2000060115 A2 20001012 WO 2000-US7920 20000327

WO 2000060115 A3 20010426

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN,

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CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
              HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
              RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
         UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,

DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF,

BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                               US 2000-536393
     US 6562570
                         В1
                              20030513
                                                                 20000328
     US 2003228615
                         A1
                              20031211
                                               US 2003-435044
                                                                 20030512
                                           US 1999-127529P P 19990402
PRIORITY APPLN. INFO.:
                                                              A1 20000328
                                           US 2000-536393
     A method for identifying sites on a target RNA which are accessible
AΒ
     to pairing by antisense DNA, ribozymes or DNAzymes. Native or in
     vitro -synthesized target RNA is incubated with defined ODNs and
     RNase H, or with a random or semi-random ODN library and RNase H, or
     with defined ribozymes or DNAzymes, or with a semi-random ribozyme
     or DNAzyme library, in a cell extract containing endogenous RNA binding
     proteins, or in a medium which mimics a cell extract due to presence of
     one or more RNA-binding proteins. Any antisense ODN, ribozyme or
     DNAzyme which is complementary to an accessible site in the target
     RNA hybridizes to that site and the RNA is cleaved at that site.
     Reverse transcription can be used to generate a first strand DNA
     from the RNA cleavage product, and terminal deoxynucleotidyl
     transferase-dependent polymerase chain reaction (TDPCR) can be used
     to identify sites on target RNA to which antisense ODNs, ribozymes
     or DNAzymes have bound and cleavage has occurred. The method was
     applied to identification of hammerhead ribozyme cleavage sites on
     human gene AIB1 mRNA as well as murine DNA methyltransferase mRNA.
     300756-64-3 300756-65-4
ΙT
     RL: PRP (Properties)
         (unclaimed nucleotide sequence; method for identifying antisense
        DNA-, ribozyme-, or DNAzyme-accessible binding sites on RNA)
     ANSWER 23 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN
                           2000:413290 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                           133:234043
                           Alternative Conformations of a Nucleic Acid
TITLE:
                           Four-way Junction
                           Nowakowski, Jacek; Shim, Peter J.; Stout, C.
AUTHOR(S):
                           David; Joyce, Gerald F.
                           Department of Chemistry, Skaggs Institute for
CORPORATE SOURCE:
                           Chemical Biology, Scripps Research Institute, La
                           Jolla, CA, 92037, USA
                           Journal of Molecular Biology (2000), 300(1),
SOURCE:
                           93-102
                           CODEN: JMOBAK; ISSN: 0022-2836
PUBLISHER:
                           Academic Press
DOCUMENT TYPE:
                           Journal
                           English
LANGUAGE:
     A crystal structure of a 108 nucleotide RNA-DNA complex containing a
     four-way junction was solved at 3.1 Å resolution The structure of
     the junction differs substantially from the "stacked-X" conformation
     observed previously, due to a 135° rotation of the branches.
     Comparison of the two conformers provides insight into the factors
     contributing to the flexibility of four-way junctions.
     stacked-X conformation maximizes base-stacking but causes
     unfavorable repulsion between phosphate groups, whereas the 135
```

°-rotated "crossed" conformation minimizes electrostatic clashes at the expense of reduced base-stacking. Despite the large rotation of the branches, both junction structures exhibit an antiparallel arrangement of the continuous strands and opposite polarity of the crossover strands. (c) 2000 Academic Press. 292890-11-0

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(four-chain RNA-DNA complex; alternative conformations of a

nucleic acid four-way junction)

29

REFERENCE COUNT:

THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 24 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1999:124703 HCAPLUS

DOCUMENT NUMBER:

130:321986

TITLE:

ΙT

Crystal structure of an 82-nucleotide RNA-DNA

complex formed by the 10-23 DNA enzyme

AUTHOR(S):

Nowakowski, Jacek; Shim, Peter J.; Prasad, G. Sridhar; Stout, C. David; Joyce, Gerald F.

CORPORATE SOURCE:

Department of Chemistry and The Skaggs Institute

for Chemical Biology, The Scripps Research

Institute, La Jolla, CA, 92037, USA

SOURCE:

Nature Structural Biology (1999), 6(2), 151-156

CODEN: NSBIEW; ISSN: 1072-8368

PUBLISHER:

Nature America

DOCUMENT TYPE: LANGUAGE:

Journal English

DNA enzyme bound to an RNA substrate was determined by x-ray diffraction at 3.0 Å resolution. The 82-nucleotide complex contains two strands of DNA and two strands of RNA that form five double-helical domains. The spatial arrangement of these helixes is maintained by two four-way junctions that exhibit extensive base-stacking interactions and sharp turns of the phosphodiester backbone stabilized by metal ions coordinated to nucleotides at these junctions. Although it is unlikely that the structure corresponds to the catalytically active

conformation of the enzyme, it represents a novel nucleic acid fold with implications for the Holliday junction structure.

IT 223694-53-9

RL: PRP (Properties)

(crystal structure of 82-nucleotide RNA-DNA complex formed by 10-23 DNA enzyme)

REFERENCE COUNT:

THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

L8 ANSWER 25 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

30

ACCESSION NUMBER:

1998:728600 HCAPLUS

DOCUMENT NUMBER:

130:1776

TITLE:

Design and catalytic activity of enzymic DNA

molecules

INVENTOR(S):
PATENT ASSIGNEE(S):

Joyce, Gerald F.; Breaker, Ronald R. The Scripps Research Institute, USA

SOURCE:

PCT Int. Appl., 161 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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KIND
                                    DATE
                                                       APPLICATION NO.
      PATENT NO.
                                    -----
                                                       _____
                                                WO 1998-US8677
                           A1
                                    19981105
                                                                             19980429
      WO 9849346
           W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
           RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
                ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
                CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
                            A1 19981124
      AU 9872675
                                                      AU 1998-72675
                                                                             19980429
                                    20010712
      AU 735522
                             B2
                                   20000301
                                                      EP 1998-920015
                                                                             19980429
      EP 981646
                             A1
               AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
                PT, IE, SI, LT, LV, FI, RO
                                    20000613
                                                       BR 1998-9433
                                                                             19980429
      BR 9809433
                             Α
      JP 2002514080
                             T2
                                    20020514
                                                       JP 1998-547359
                                                                             19980429
                                    20020207
                                                       AU 1999-65509
                                                                             19991224
      AU 743767
                             B2
                                    20000309
      AU 9965509
                             A1
PRIORITY APPLN. INFO.:
                                                   US 1997-45228P
                                                                         P 19970429
                                                                         W 19980429
                                                   WO 1998-US8677
```

The present invention discloses DNA enzymes -- catalytic or enzymic AB DNA mols. -- capable of cleaving nucleic acid sequences or mols., particularly RNA, in a site-specific manner, as well as compns. including same. The catalytic DNAs have first and substrate binding regions flanks a core region, wherein the first substrate binding region has a sequence complementary to a first portion of the preselected substrate nucleic acid sequence, and the second substrate binding region has a sequence complementary to a second portion of the preselected substrate nucleic acid sequence. The core region has a sequence according to the formula T(stem)'AGC(stem)"Z, where the (stem)' and (stem)" are each 3 sequential nucleotides which when hybridized as a (stem)':(stem)" pair comprise 3 base pairs including at least two G:C pairs and wherein Z = WCGR or WCGAA, and W = A or T and R = A or G. Also contemplated is a core region having a sequence RGGCTAGCXACAACGA, wherein X = T, C or A, and R = A or G. Methods of making and using the disclosed enzymes and compns. are also disclosed. An exemplary method of engineering enzymic DNA mols. that cleave phosphoester bonds comprises the following in vitro selection/evolution steps: (1) obtaining a population of single-stranded DNA mols.; (2) introducing genetic variation into the population to produce a variant population; (3) selecting individuals from the variant population that meet predetd. selection criteria; (4) separating the selected individuals from the remainder of the variant population; and (5) amplifying the selected individuals. Deoxyribozymes variants designated 8-17 (core region 5'cttccaccttccgagccggacgaagttacttttt-3') and 10-23 (core region 5'-ctttggttaggctagctacaacgatttttcc-3') have turnover nos. and kobs of 0.5 and 1 h-1, 0.002 and 0.01 min-1, resp., in 10 mM Mg2+, pH 7.5 and 37° .

IT 215727-35-8P, Deoxyribozyme (synthetic clone 10-38)

RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PREP (Preparation)

(design and catalytic activity of enzymic DNA mols.)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN

THE RE FORMAT

L8 ANSWER 26 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:308152 HCAPLUS

DOCUMENT NUMBER: 127:30832

TITLE: A general purpose RNA-cleaving DNA enzyme

AUTHOR(S): Santoro, Stephen W.; Joyce, Gerald F.

CORPORATE SOURCE: Departments of Chemistry and Molecular Biology and the Skaggs Institute for Chemical Biology,

The Scripps Research Institute, La Jolla, CA,

92037, USA

SOURCE: Proceedings of the National Academy of Sciences

of the United States of America (1997), 94(9),

4262-4266

CODEN: PNASA6; ISSN: 0027-8424 National Academy of Sciences

DOCUMENT TYPE: Journal LANGUAGE: English

An in vitro selection procedure was used to develop a DNA enzyme that can be made to cleave almost any targeted RNA substrate under simulated physiol. conditions. The enzyme is comprised of a catalytic domain of 15 deoxynucleotides, flanked by two substrate-recognition domains of seven to eight deoxynucleotides each. The RNA substrate is bound through Watson-Crick base pairing and is cleaved at a particular phosphodiester located between an unpaired purine and a paired pyridine residue. Despite its small size, the DNA enzyme has a catalytic efficiency (Kcat/Km) of ≈109 M-1/min-1 under multiple turnover conditions, exceeding that of any other known nucleic acid enzyme. Its activity is dependent on the presence of Mg2+ ion. By changing the sequence of the substrate-recognition domains, the DNA enzyme can be made to target different RNA substrates. In this study, for example, it was directed to cleave synthetic RNAs corresponding to the start codon region of HIV-1 gag/pol, env, vpr, tat, and nef mRNAs.

IT 190795-31-4

PUBLISHER:

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)

(general purpose RNA-cleaving DNA enzyme)

E1 THROUGH E28 ASSIGNED

FILE 'REGISTRY' ENTERED AT 12:41:44 ON 21 JAN 2004

28 SEA FILE=REGISTRY ABB=ON PLU=ON (190795-31-4/BI OR
215727-35-8/BI OR 223694-53-9/BI OR 292890-11-0/BI OR
300756-64-3/BI OR 300756-65-4/BI OR 334544-13-7/BI OR
334544-14-8/BI OR 345373-30-0/BI OR 345373-31-1/BI OR
400185-65-1/BI OR 403777-66-2/BI OR 444035-98-7/BI OR
478129-01-0/BI OR 479786-61-3/BI OR 483392-16-1/BI OR
484802-52-0/BI OR 491672-93-6/BI OR 493068-33-0/BI OR
503875-66-9/BI OR 504513-55-7/BI OR 506617-43-2/BI OR

543745-67-1/BI OR 557143-59-6/BI OR 591261-44-8/BI OR 613321-58-7/BI OR 633370-08-8/BI OR 638223-95-7/BI)

L10 28 S L9 AND L1

L10 ANSWER 1 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN **638223-95-7** REGISTRY

CN DNA, d(R-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A) (9CI) (CA INDEX NAME)

CI MAN

SOL 16

SEQ 1 rggctagcta caacga

HITS AT: 1-16

RELATED SEQUENCES AVAILABLE WITH SEQLINK

L10 ANSWER 2 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN **633370-08-8** REGISTRY

CN DNA, d(R-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 12: PN: US20030228590 SEQID: 14 unclaimed DNA

CI MAN

SQL 16

SEQ 1 rggctagcta caacga

HITS AT: 1-16

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 140:26917

L10 ANSWER 3 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN **613321-58-7** REGISTRY

CN DNA, d(R-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 2617: PN: US20030203870 SEQID: 2617 unclaimed DNA

CI MAN

SQL 16

SEQ 1 rggctagcta caacga

HITS AT: 1-16

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 139:317479

L10 ANSWER 4 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN **591261-44-8** REGISTRY

CN DNA, d(N-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 63: PN: US2003171311 SEQID: 9700 unclaimed DNA

CI MAN

SQL 16

1 nggctagcta caacga SEO -----1-16 HITS AT: REFERENCE 1: 139:224402 L10 ANSWER 5 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN **557143-59-6** REGISTRY RN DNA, d(R-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A) (9CI) (CA INDEX NAME) OTHER NAMES: 1913: PN: US20030125270 FIGURE: 5 unclaimed DNA CN MAN CI SQL 16 SEQ 1 rggctagcta caacga _____ HITS AT: 1-16 **RELATED SEQUENCES AVAILABLE WITH SEQLINK** 1: 139:358722 REFERENCE L10 ANSWER 6 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN RN **543745-67-1** REGISTRY DNA, $d(A-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A-(3'\rightarrow3')-G)$ (9CI) (CA CN INDEX NAME) MAN CI SOL 17 SEQ 1 aggctagcta caacgag ____ HITS AT: 1-16 REFERENCE 1: 139:46323 L10 ANSWER 7 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN 506617-43-2 REGISTRY ŔN DNA, d(R-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A) (9CI) (CA INDEX NAME) CN OTHER NAMES: 4771: PN: US20030073207 SEQID: 9645 unclaimed DNA CN CI MAN SOL 16 SEO 1 rggctagcta caacga _____ HITS AT: 1-16 **RELATED SEQUENCES AVAILABLE WITH SEQLINK** REFERENCE 1: 139:143909 L10 ANSWER 8 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN **504513-55-7** REGISTRY RNDNA, d(R-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A) (9CI) (CA INDEX NAME) OTHER NAMES: 21: PN: US20030065155 SEQID: 21 unclaimed DNA

> 571-272-2528 Shears Searcher :

CN CI

SOL

MAN 16

SEQ 1 rggctagcta caacga

HITS AT: 1-16

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 138:282290

L10 ANSWER 9 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN **503875-66-9** REGISTRY

CN DNA, d(R-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 445: PN: US20030064945 SEQID: 445 claimed DNA

CI MAN

SQL 16

SEQ 1 rggctagcta caacga

HITS AT: 1-16

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 138:292713

L10 ANSWER 10 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN **493068-33-0** REGISTRY

CN DNA, d(R-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 13: PN: WOO3008628 SEQID: 13 unclaimed DNA

CI MAN

SOL 16

SEQ 1 rggctagcta caacga

HITS AT: 1-16

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 138:142441

L10 ANSWER 11 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 491672-93-6 REGISTRY

CN DNA, d(R-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1774: PN: WO02081494 SEQID: 16197 unclaimed DNA

CI MAN

SQL 16

SEQ 1 rggctagcta caacga

HITS AT: 1-16

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 138:314544

L10 ANSWER 12 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 484802-52-0 REGISTRY

CN DNA, d(R-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 80: PN: WO02081628 SEQID: 13274 unclaimed DNA

CI MAN

SQL 16

SEQ 1 rggctagcta caacga

HITS AT: 1-16

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 138:265678

L10 ANSWER 13 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN **483392-16-1** REGISTRY

CN DNA, d(R-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 21: PN: US20030008295 SEQID: 21 unclaimed DNA

CI MAN

SQL 16

SEQ 1 rggctagcta caacga

HITS AT: 1-16

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 138:84437

L10 ANSWER 14 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN **479786-61-3** REGISTRY

CN DNA, d(R-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 2122: PN: WO02068637 SEQID: 37054 unclaimed RNA

CI MAN

SQL 16

SEQ 1 rggctagcta caacga

HITS AT: 1-16

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 138:66656

L10 ANSWER 15 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN

RN 478129-01-0 REGISTRY

CN DNA, d(Y-R-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A-R) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1332: PN: WO02097114 SEQID: 6810 unclaimed RNA

CI MAN

SQL 18

SEQ 1 yrggctagct acaacgar

HITS AT: 2-17

REFERENCE 1: 138:19530 L10 ANSWER 16 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN **444035-98-7** REGISTRY RN DNA, d(G-A-G-C-T-G-G-A-G-G-A-A-A-C-G-G-C-A-G-T-C), complex with DNA CN A-A-G-C-T-C) and RNA (G-A-C-U-G-C-C-G-U-A-G-G-U-U-G-C-C-C) (1:1:1) (9CI) (CA INDEX NAME) MAN CI SQL 78,39,21,18 SEO 1 gggcaaggct agctacaacg actaaattgg aggaagctc HITS AT: 6-21 SEQ 1 gagctggagg aaacggcagt c SEQ 1 gacugeegua gguugeee 1: 137:121425 REFERENCE L10 ANSWER 17 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN RN **403777-66-2** REGISTRY CN DNA, d(R-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A) (9CI) (CA INDEX NAME) CI MAN SQL 16 SEO 1 rggctagcta caacga HITS AT: 1-16 **RELATED SEQUENCES AVAILABLE WITH SEQLINK** 1: 136:241681 REFERENCE L10 ANSWER 18 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN **400185-65-1** REGISTRY RN CN DNA, d(R-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A) (9CI) (CA INDEX NAME) OTHER NAMES: CN 449: PN: WO0211674 SEQID: 5447 unclaimed DNA CI MAN SQL 16 SEO 1 rggctagcta caacga HITS AT: 1-16 **RELATED SEQUENCES AVAILABLE WITH SEQLINK** REFERENCE 1: 136:194272 L10 ANSWER 19 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN RN **345373-31-1** REGISTRY DNA, d(A-T-C-T-T-G-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A-A-C-C-A-T-G), CN complex with RNA (C-A-U-G-G-U-A-C-A-A-G-A-U) (1:1) (9CI) (CA INDEX NAME) OTHER CA INDEX NAMES:

Searcher :

Shears

571-272-2528

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RNA, (C-A-U-G-G-U-A-C-A-A-G-A-U), complex with DNA
CN
      d(A-T-C-T-T-G-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A-A-C-C-A-T-G) \quad (1:1) \quad (9CI)
      MAN
CI
     40,27,13
SQL
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                    ____ =
HITS AT:
             6-21
SEO
           1 caugguacaa gau
REFERENCE
              1: 135:57661
L10 ANSWER 20 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN
      345373-30-0 REGISTRY
RN
      DNA, d(C-G-G-A-G-A-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A-A-C-A-A-G-C),
CN
      complex with RNA (G-C-U-U-G-U-A-U-C-U-C-G) (1:1) (9CI) (CA INDEX
      NAME)
OTHER CA INDEX NAMES:
      RNA, (G-C-U-U-G-U-A-U-C-U-C-C-G), complex with DNA
      d(C-G-G-A-G-A-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A-A-C-A-A-G-C) (1:1) (9CI)
CI
      MAN
SOL
     40,27,13
SEO
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                    ____ =
HITS AT:
             6-21
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SEQ
REFERENCE
              1: 135:57661
L10 ANSWER 21 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN
RN
      334544-14-8 REGISTRY
      \texttt{DNA, } \texttt{d} \left( \texttt{A} - \texttt{G} - \texttt{T} - \texttt{G} - \texttt{T} - \texttt{C} - \texttt{G} - \texttt{G} - \texttt{C} - \texttt{T} - \texttt{A} - \texttt{G} - \texttt{C} - \texttt{T} - \texttt{A} - \texttt{C} - \texttt{A} - \texttt{A} - \texttt{C} - \texttt{G} - \texttt{A} - \texttt{T} - \texttt{C} - \texttt{C} - \texttt{T} - \texttt{G} - \texttt{G} - \texttt{T} \right),
CN
      complex with RNA (A-C-C-A-G-G-A-G-C-G-A-C-A-C-U) (1:1) (9CI) (CA
      INDEX NAME)
OTHER CA INDEX NAMES:
      RNA, (A-C-C-A-G-G-A-G-C-G-A-C-A-C-U), complex with DNA
      d(A-G-T-G-T-C-G-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A-T-C-C-T-G-G-T) \quad (1:1)
      (9CI)
CI
      MAN
SQL
     44,29,15
SEQ
           1 agtgtcgggc tagctacaac gatcctggt
                     7-22
HITS AT:
SEQ
           1 accaggagcg acacu
REFERENCE
              1: 134:291623
L10 ANSWER 22 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN
RN
      334544-13-7 REGISTRY
      \texttt{DNA, d}(\texttt{C-C-T-G-A-C-A-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A-G-C-T-G-T-C-A}),
CN
      complex with RNA (U-G-A-C-A-G-C-A-U-G-U-C-A-G-G) (1:1) (9CI) (CA
      INDEX NAME)
OTHER CA INDEX NAMES:
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RNA, (U-G-A-C-A-G-C-A-U-G-U-C-A-G-G), complex with DNA
CN
    d(C-C-T-G-A-C-A-G-G-C-T-A-G-C-T-A-C-A-C-G-A-G-C-T-G-T-C-A) \quad (1:1)
    (9CI)
CI
    MAN
SQL 44,29,15
        1 cctgacaggc tagctacaac gagctgtca
               7-22
HITS AT:
SEO
        1 ugacagcaug ucagg
          1: 134:291623
REFERENCE
L10 ANSWER 23 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN
    300756-65-4 REGISTRY
CN
    14: PN: WO0060115 SEQID: 20 unclaimed DNA (9CI) (CA INDEX NAME)
CI
    MAN
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   16
SEO
        1 gggctagcta caacga
          HITS AT:
         1-16
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
REFERENCE
          1: 133:291920
L10 ANSWER 24 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN
    300756-64-3 REGISTRY
RN
    13: PN: WO0060115 SEQID: 19 unclaimed DNA (9CI) (CA INDEX NAME)
CN
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    MAN
SQL 16
        1 aggctagcta caacga ·
SEQ
          HITS AT:
         1-16
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
REFERENCE
         1: 133:291920
L10 ANSWER 25 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN
    292890-11-0 REGISTRY
RN
    CN
     \label{eq:c-c-t}  \text{C-C-T), complex with RNA } (A-G-G-A-G-A-G-A-G-A-U-G-G-G-U-G-C-G-A-G) 
    (1:1) (9CI)
               (CA INDEX NAME)
OTHER CA INDEX NAMES:
    RNA, (A-G-G-A-G-A-G-A-G-A-U-G-G-G-U-G-C-G-A-G), complex with DNA
    T) (1:1) (9CI)
OTHER NAMES:
    DNA (synthetic DNA-RNA four-way junction)
CN
    DNA (synthetic DNA-RNA Holliday junction)
CI
    MAN
SQL 54,34,20
        1 ctcgcaccca ggctagctac aacgactctc tcct
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HITS AT: 10-25 1 aggagagaga ugggugcgag SEO REFERENCE 1: 133:234043 L10 ANSWER 26 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN 223694-53-9 REGISTRY RN DNA, d(G-C-T-C-C-A-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A-C-T-G-T-C-C), CN complex with RNA (G-G-A-C-A-G-A-U-G-G-G-A-G) (1:1) (9CI) (CA INDEX NAME) OTHER CA INDEX NAMES: RNA, (G-G-A-C-A-G-A-U-G-G-G-A-G), complex with DNA $d \left(G - C - T - C - C - C - A - G - G - C - T - A - G - C - T - A - C - A - A - C - G - A - C - T - G - T - C - C \right) \quad (1:1)$ CI MAN SOL 82,28,28,13,13 1 gctcccaggc tagctacaac gactgtcc HITS AT: 7-22 1 gctcccaggc tagctacaac gactgtcc ____ === HITS AT: 7-22 1 ggacagaugg gag SEO SEQ 1 ggacagaugg gag 1: 130:321986 REFERENCE L10 ANSWER 27 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN RN 215727-35-8 REGISTRY Deoxyribozyme (synthetic clone 10-38) (9CI) (CA INDEX NAME) CN CI MAN SQL 16 1 rggctagcha caacga SEQ ______ HITS AT: 1-16 **RELATED SEQUENCES AVAILABLE WITH SEQLINK** REFERENCE 1: 130:1776 L10 ANSWER 28 OF 28 REGISTRY COPYRIGHT 2004 ACS on STN 190795-31-4 REGISTRY RN DNA, d(R-G-G-C-T-A-G-C-T-A-C-A-A-C-G-A) (9CI) (CA INDEX NAME) CN CI MAN SQL 16 1 rggctagcta caacga _____

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RELATED SEQUENCES AVAILABLE WITH SEQLINK

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REFERENCE 1: 135:175355

REFERENCE 2: 127:30832

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Theobroma cacao cDNA clone Cac_BL_5432 5', mRNA sequence.
CA798147
CA798147.1 GI:26055233
                                                            Gene
Planta 216 (2),
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nes, P.G., Allaway, D., Gilmour, D.M., Harris, C., Rankin, D., Retzel.R. and Jones, C.A.
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                                                                                                                         Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error: 0.00
Plate: 0535 row: M column: 02
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AZ658330.1
GSS.
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                                                                                                                                                                                                                                                                                                                                                                    Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Du Islam, H., Longacre, S., Mahmoud, M., Meenen, E., M., Rose, M., Rose, R., Stokes, R., Tingey, A., and Wright, D., Weiss, R.
Mouse whole genome scaffolding with paired en
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 RGGCTAGCTACAACG 15
                                                                                                                                                                                                             Tel: 801 585 5606
Fax: 801 585 7177
                                                                                                                                                                                                                                                                                 University of Utah
                                                                                                                                                                                                                                                                                                                      Contact: Robert B.
                                                                                                                                                                                                                                                                                                                                     Unpublished
                                                                                                                                                                                                                                                                                                                                                       plasmid inserts
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
1 (bases 1 to 100)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AZ658330 100 bp DNA linear GSS 14-DEC-2000 IM0535M02F Mouse 10kb plasmid UUGC1M library Mus musculus genomic clone UUGC1M0535M02 F, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Jones, Paul
Masterfoods
3d Dundee Road, Slough, Berkshire,
Tel: +44 1664 416644
Email: Paul.Jones@eu.effem.com
Seg primer: T3.
                                                                                                     ass: plasmid ends
                                                                                                                                                                                                                                                                    308,
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                                                                                                                                                                                                                                                     USA
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/organism="Mus musculus"
/mol_type="genomic DNA"
/strain="C57BL/6J"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                  Biomedical
                                                                                        location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="Vector: pBK-CMV; Bean and leaf tissue
Amelonado type Cacao tree."
17 c 27 g 18 t 3 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /tissue_type="Mature leaf and mature bean"
/cell_type="Whole organ"
/dev_stage="maturity"
/lab_host="XL-1 Blue MRF/"
/clone_lib="Cac_BL (Bean and Leaf from Amelonardo Cacao)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              organishe manna mol type manna type "frain="Amelonado type"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:11795476
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86.7%;
                                                                                                                                                                                                                                                                                                    Genome Center
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                                                                                                                                                                                                                                                               Polymers Research Bldg.,
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Pred. No. 5.9e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                      Meenen, E.,
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F. Pedersen,T., Reilly
                                                                                                                                                                                                                                                                                                                                                                    end reads
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                                                                                                                                                                                                                                                                20
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                                                                                                                                                                                                                                                                                                                                                                                                    Pedersen, T., Reilly
                                                                                                                                                                                                                                                             S. 2030 E.,
                                                                                                                                                                                                                                                                                                                                                                    from 10kb
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BASE COUNT
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                                                                                                                                                                                                                                                                                                                                                                                        found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: LLCM1317 row: b column: 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 44)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tissue Procurement: DCTD/DTP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BG422154.1 GI:13328660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BG422154
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            iomo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cDNA Library Preparation: Ling Hong/Rubin Laboratory cDNA Library Arrayed by: The I.M.A.G.E. Consortium (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RGGCTAGCTACAA 13
                                                                                                                                                                                                                                                                                                                                                               quality sequence stop: 44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pWD42 (gi|4732114|gb|AF129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent B. coli XL10-Gold (Stratagene) cells and selected for ampicilin resistance."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            musculus C57BL/6J (male) was obtained from the Jackson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /lab_host="E. Coli strain XL10-Gold, T1-resistant, F
/clone_lib="Mouse 10kb plasmid UUGC1M library"
/note="Vector: PWD42nv; Purified genomic DNA from M.
/clone="IMAGE:4587189"
/tissue_type="renal cell adenocarcinoma"
/tissue_type="renal cell adenocarcinoma"
/lab host="DH108 (phage-resistant)"
/clone_lib="NIH_MGC_14"
/clone_Tib="NIH_MGC_14"
/note="Organ: kidney; Vector: pOTB7; Site_1: XhoI; Site_2:
ECORI; cDNA made by Oligo-dT priming. Directionally
cloned into EcoRI/XhoI sites using the following 5'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Laboratory Mouse DNA Resource
                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           78.8%;
92.3%;
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Pred. No. 1.1e+04;
1; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mRNA
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밁 á

Matches

RESULT 3

REFERENCE AUTHORS TITLE

KEYWORDS

VERSION ACCESSION

COMMENT

JOURNAL

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SOURCE
ORGANISM
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AUTHORS
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Best Local
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21
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1 (bases 1 to 26)

1 (bases 1 to 26)

1 (hases 1 to 27)

1 (hases 1 to 28)

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4 (hases 7 to
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26 bp NA THICAL TO SALK 079024.36.15.x Arabidopsis thaliana TDNA insertion lines Arabidopsis thaliana genomic clone SALK 079024.36.15.x, genomic
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Fax: 858 558 6379
Email: ecker@salk.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Salk Institute Genomic Analysis Laboratory (SIGnAL)
The Salk Institute for Biological Studies
10010 N. Torrey Pines Road, La Jolla, CA 92037, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Arabidopsis thaliana
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   GGCTAGCTACAA 10
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                                                                                                                                                                                                                                                                                           /clone="SALK 079024.36.15.x"
/clone lib="Arabidopsis thaliana TDNA insertion lines"
/note="PCR was performed on Arabidopsis thaliana lines
each of which contains one or more TDNA insertion
elements. The resultant fragment for each line was
directly sequenced to determine the genomic sequence at
the site of insertion. Details of the protocols used can
be found at http://signal.salk.edu/tdna_protocols.html"
a 6 c 3 g 11 t
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10 c 21 g 7 t
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|mol_type="genomic DNA"
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                                                                                                                                                           Score 12; DB 28;
Pred. No. 1.4e+04;
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BU866082.1 GI:24056736
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                                                                   Umea Plant Science Center
Department of Plant Physiology
University of Umea, 901 87 Umea, Swed
Tel: +46 90 786 5279
Fax: +46 90 786 6676
Email: rupali bhalerao@plantphys.umu.
                                                                                                                                                                                                                                                                                            Populus tremula x Populus tremuloides
Populus tremula x Populus tremuloides
Populus tremula x Populus tremuloides
Eukaryota, Viridiplantae, Streptophyta; Embryophyta; Tracheophyta;
Eukaryota; Magnoliophyta; eudicotyledons; core eudicots; rosid
Spermatophyta; Magnoliophyta; eudicotyledons
; eurosids I; Malpighiales; Salicaceae; Populus.
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Populus tremula x Populus tremuloides
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Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids
; eurosids I; Malpighiales; Salicaceae; Populus.
                                                                                                                                                                                   Contact: BHALERAO RUPALI R.
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Department of Plant Physiology
University of Umea, 901 87 Umea,
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The norder tree transcriptome: Analysis of expressed
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Fax: +46 90 786 6676
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    .95
/organism="Populus tremula x Populus"

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/mol type="maRNA"

/db_xref="taxon:47664"

/tissue type="imbibed seed"

/clone_Tib="Populus imbibed seed cDNA library"

20 c 12 g 20 t
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85.7%;
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Department of Plant Physiology
University of Umea, 901 87 Umea,
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Location/Qualifiers
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Fax: +46 90 786 6676
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/db xref="taxon:47664"
/tissue_type="imbibed seed"
/clone_Tib="Populus imbibed s
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                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Populus tremula x Populus tremuloides"
/mol_type="mRNA"
/db_xref="taxon:47664"
                                                                                              GI:24047927
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85.7%;
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2.2e+04
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Best Local
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                                                                                                                               Plate: 0452 row: D column: 18
Seg primer: CGTTGTAAAACGACGGCCAGT
Class: plasmid ends
High quality sequence stop: 80.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AZ619815 AZ619816 Mouse 10kb plasmid UUGC1M library Mus musculus clone UUGC1M0452D18 F, genomic survey sequence.
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Department of Plant Physiology
University of Umea, 901 87 Umea,
Tel: +46 90 786 5279
Fax: +46 90 786 6676
                                                                                                                                                                                                   Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error:
Plate: 0452 row: D column: 18
                                                                                                                                                                                                                                                                                             University of Utah Genome Center
University of Utah
Rm. 300, Biomedical Polymers Research Bldg.,
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
1 (bases 1 to 80)
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                                                                                                                                                                                                                                                                                                                                                       Contact: Robert B. Weiss
                                                                                                                                                                                                                                                                                                                                                                     Unpublished
                                                                                                                                                                                                                                                                                                                                                                                        plasmid inserts
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801 585 7177
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                                                                                                                                                                                                                                                                                     USA
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Location/Qualifiers
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|mol_type="mRNA"
|/mol_type="mRNA"
|/db_xref="rtaxon:47664"
|/tissue_type="imbibed seed"
|/clone_lib="Populus imbibed seed cDNA library"
|/clone_lib="Populus imbibed seed cDNA library"
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                                                              /mol_type="genomic DNA"
/strain="C57BL/6J"
'lab_host="E.
               /clone="UUGC1M0452D18"
/sex="Male"
                                                db_xref="taxon:10090"
                                                                                                 organism="Mus musculus
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85.7%;
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Coli strain XL10-Gold,
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T1-resistant,
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28
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                                                                                                                                                                                                                                                                               High quality sequence starts: 1
High quality sequence stops: 1
Source: IMAGE Consortium, LINIL
This clone is available royalty-free through LINI.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hillier, L., Clark, N., Dubuque, T., Elliston, K., Hawkins, M., Holman, M., Hultman, M., Kucaba, T., Le, M., Lennon, G., Marra, M., Parsons, J., Rifkin, L., Rohlfing, T., Soares, M., Tan, F., Trevaskis, E., Waterston, R., Williamson, A., Wohldmann, P. and Wilson, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 52)
Hillier, L., Clark, N., Dubuque, T., Elliston, K., Hawkins, M., Holman
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                                                                                                                                                                                          IMAGE Consortium (info@image.llnl.gov)
Trace considered overall poor quality
Insert Length: 1449 Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Washington University School of Medicine 4444 Forest Park Parkway, Box 8501, St. 1 Tel: 314 286 1800 Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                          Email: est@watson.wustl.edu
Insert Size: 1449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Wilson RK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."

15 c 21 g 24 t
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/note="Vector: PWD42nv; Purified genomic DNA from M.
musculus C57BL/6J (male) was obtained from the Jack
/organism="Homo sapiens"
/mol_type="mRNA"
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                                                                                                 ocation/Qualifiers
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91.7%;
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Pred. No. 3.5e+04;
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Orlando, FL 32816-2360
Tel: 407 384 2061
Fax: 407 384 3095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dame, J.B., Arnot, D.E., Bourke, P., Chakrabarti, D., Christodoulou, Z. Coppel, R., Cowman, A., Craig, A., Fischer, K., Foster, J., Goodman, N., Hinterberg, K., Holder, A.A., Holt, D., Kemp, D., Lanzer, M., Lim, A., Newbold, C., Ravetch, J.V., Reddy, G.R., Rubio, J., Schuster, S.M., Su, X.-Z., Thompson, J.K., Vital, F., Wellems, T.B. and Werner, E. Current status of the Plasmodium falcipartm. B. comme project Mol. Biochem. Parasitol. 79, 1-12 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Plasmodium falciparum (malaria parasite P. falciparum)
Plasmodium falciparum
Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.
1 (bases 1 to 74)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N98196
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Department of Molecular Biology
University of Central Florida
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N98196.1 GI:1674562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    clone PF0266C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Debopam Chakrabarti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8844667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0266C3
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                                                                                                                                                                                                                                                                                                                                                                                             primer: T3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             czapPFDd2.1,
                                                                                                                                                                                                                                                                                                                                                                                                                dchak@pegasus.cc.ucf.edu
/lab host="E. coli XL-1 blue"
/clone lib="czapPPDd2.1, Debopam Chakrabarti"
/clone lib="czapPPDd2.1, Debopam Chakrabarti"
/note="Vector: Lambda ZAP II; Site 1: EcoR I; Site 2: Xho
I, PolyA+ RNA, from asynchronous blood stage parasites of
the Dd2 isolate cultured in vitro, was reverse transcribed
using an oilgo dT-Xho I primer. Second strand was
prepared using RNase H and DNA polymerase I. EcoR I
adapters were ligated to the cDNA, and it was digested
with Xho I. Prepared fragments were ligated into EcoR I +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                double-stranded cDNA was ligated to Hind III adaptors (Pharmacia), digested with Not I and directionally cloned into the Not I and Hind III sites of the Action Library went through one round of normalization. Library constructed by Bento Soares and M.Fatima Bonaldo."

16 c 11 g 11 t 6 others
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/lab host="DH10B (ampicillin resistant)"
/clone_lip="Soares infant brain INIB"
/clone_typ="Soares infant brain; Vector: Lafmid BA; Site_1: Not /note="Organ: whole brain; Vector: Lafmid BA; Site_1: Not I; Site_2: Hind III; 1st strand cDNA was primed with a Not I - oligo(dT) primer [5'
                                                                                                                                                                                                                            /db_xref="taxon:5833"
/clone="PF0266C"
                                                                                                                                                                                                                                                                           strain="Dd2"
                                                                                                                                                                                                                                                                                                      TOW
T
                                                                                                                                                                                                                                                                                                                       organism="Plasmodium falciparum"
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/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                            _type="mRNA"
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SOURCE

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FEATURES

Query Match Best Local Similarity

71.2%;

Score 11.4; DB 29 Pred. No. 4.4e+04; 1; Mismatches 2

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                                                                                                                                                                                                                                                                                                                                                                       Zuechtungsforsching, Carl-von-Linne-Weg 10, Koeln, 50829, Germany This sequence is recovered from the left border of the T-DNA. It indicates an insertion close to or within gene At 3553040. The sequences are generated at the MPI for Plant Breeding Research in the context of the GABI-Kat project. GABI-Kat is part of the Germa Plant Genomics program designated 'GABI'. Information on line availability can be found at:

http://www.mpiz-koeln.mpg.de/GABI-Kat/.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rosso,M., Strizhov,N., Li,Y., Reiss,B., Dekker,K. and Weisshaar,B. A new Arabidopsis thaliana T-DNA mutagenised population (GABI-Kat) for flanking sequence tag based reverse genetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Arabidopsis thaliana

Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
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12; Conser
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Submitted (02-JUN-2003) Weisshaar B., Max-Planck-Institut fuer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Li,Y., Strizhov,N., Rosso,M. and Weisshaar,B. Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Strizhov, N., Li, Y., Rosso, M., Viehoever, P., Dekker, K., Saedler, H.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished
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                   removed"
a 19 c
                                                            similarity to the A. thalaina nuclear genome sequence were processed for submission. T-DNA derived sequences were
                                                                                               /clone_lib="Arabidopsis thaliana T-DNA insertion lines" /note="PCR was performed on DNA from Arabidopsis thaliana plants (T1) which were transformed with the T-DNA from vector pAC161. The lines contain one or more T-DNA insertions. The DNA fragment(s) resulting from the PCR were directly sequenced to determine the genomic sequence flanking the insertion. Sequences displaying significant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Xho I digested lambda ZAP II vector. "
a 17 c 12 g 14 t 13 othe
                                                                                                                                                                                                                                                                                        organism="Arabidopsis thaliana"
|mol_type="genomic_DNA"
|strain="Columbia_0"
                                                                                                                                                                                                                                                                           db xref="taxon:3702"
                                                                                                                                                                                                                                                 clone="GK-514H05-019924"
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85.7%;
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                                                          for submission.
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This clone is available through: ResGen, Invitrogen Corp. 2130
This clone is available through: ResGen, Invitrogen Corp. 2130
South Memorial Parkway Huntsville, AL 35801 For further information
call: (800)-533-4363 or contact via email: ccu@resgen.com
Insert Length: 369 Std Error: 0.00
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Public Soybean EST Project
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108, USA
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314 286 1810
                                                                                second-strand synthesis, the cDNA ends were 'polished' with clone Pfu DNA polymerase, ligated to EcoRI adapters, and phosphorylated. The XhoI site within the first-strand synthesis primer was restricted by digestion with XhoI, all XhoI sites in the cDNA would be protected by their hemimethylated status. The cDNA constructs were size-fractionated with a 500bp cutoff, using GibcoBRL Life Technologies' cDNA Size Fractionation column. The column eluent was then ligated into Stratagene's pBluescript II XR Predigested vector (pBluescript II SK(+) that had been discorded with a 500 by constructs with Toward beautiful to the column of the column 
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/note="Vector: pBluescript II XR; Site 1: EcoRI; Site 2:
/kno1; Root cDNA. The mENA was isolated from entire roots
of 8 day old 'Williams' seedlings which were propagated on
paper towels with distilled water. Stratagene's cDNA
Synthesis Kit (catalog #200401) was used to synthesize the
cDNA. First- strand synthesis was performed with 5-methyl
dCTP, hence the ligated cDNA is hemimethylated.
Stratagene's first-strand synthesis primer was used
[GAGAGAGAGAGAGAGAGAACTAGTCTCCGAG(T)-18]. After
digested with EcoRI and XhoI, and phosphorylated). Both the white and blue colonies appear to contain recombinant
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12;
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Grossman, A., Chang, C.-W., Davies, J., Harris, E., Hauser, C., Lefeb, P., McDermott, J.P., Shrager, J., Silflow, C. and Stern, D., P., McDermott, J.P., Shrager, J., Silflow, C. and Stern, D., Analyses of the Chlamydomonas reinhardtii Genome: A Model, Unicellular System for Analyzing Gene Function and Regulation in
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Chlamydomonas reinhardtii
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Tel: 919 613 8159
Fax: 919 613 8177
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1030113D08.x1 C. reinhardtii CC-1690, Deflagellation (normalized),
Lambda Zap II Chlamydomonas reinhardtii cDNA, mRNA sequence.
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                                                                                                      // Notes "Vector: pBluescript II SK-; Site 1: EcoRI; Site 2: XhoI; Deflagellation library, constructed by John Davies and Jeffrey McDermott, combines cDNAs from CC-1690 cells which had been re-synthesizing flagella for 15, 30 and 60 min after being deflagellated by pH shock. PolyA mRNA was purified from each sample, pooled and cDNA synthesized. The cDNA was directionally cloned into lambda Zap II (Stratagene) in the EcoRI (5') and XhoRI (3') sites. pBluescript II SK- plasmids were excised from the lambda ZAP clones by superinfection with ExAssist (Stratagene) phage. The library was normalized using method 4 described in Bonaldo et al., (1996) Genome Research 6: 791-806."
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Conservative
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/mol_type="mRNA"
/strain="CC-1690 wild type mt+ 21gr"
/strain="CC-1690 wild type mt+ 21gr"
/db xref="taxon:3055"
/clome_lib="C. reinhardtii CC-1690, Deflagellation
/clome_lib="C. reinhardtii CC-1690, Deflagellation
/cormalized), Lambda Zap II"
/cormalized), Lambda Zap II"
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           A pipeline for automated high-throughput generation of FSTs (flanking sequence tags) from Arabidopsis thaliana T-DNA transformed lines
                                                                                                                    Arabidopsis thaliana (thale cress)
Arabidopsis thaliana
Arabidopsis thaliana
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12;
                                                                       and
                                                                                                                                                                                                                                                          genomic survey sequence BX288422
                                                                                                                                                                                                                                                                                         BX288422 58 bp DNA linear GSS 07-MAR-2003 Arabidopsis thaliana T-DNA flanking sequence GK-414B10-018037,
                                                                                                                                                                                                                                         BX288422.1 GI:28887418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: sschroec
Class: shotgun.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tel: 573 882 8214
Fax: 573 884 7850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                University of Missouri
209 Curtis Hall, Colum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Schroeder S
Missouri Maize Project--Maize Mapping Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 (bases 1 to 96)
Missouri Maize Project--Maize Mapping Project.
PstI Zea mays B73 PstI leaf tissue library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AZ916132
96 bp DNA linear GSS 15-MA
PstI_3_a8-c-1_0 Maize PstI B73 Leaf Zea mays genomic, genomic
Survey sequence.
                                                                                   Strizhov, N., Li, Y., Rosso, M., Viehoever, P., Dekker, K., Saedler, H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
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GSS.
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                                                                       Weisshaar, B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sschroeder@celephais.agron.missouri.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /lab_host="DH5 alpha"
/clone lib="Maize PstI B73 Leaf"
/clone="Organ: Leaf; Vector: PUC19; PstI digested B73
/note="Organ: Leaf; Vector: PUC19; PstI digested B73
genomic sucrose gradient size fractionated fragment sizes
of 0.5kb to 2kb ligated to PUC19 transformed in DH5 alpha"
a 29 c 27 g 18 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /cultivar="B73"
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                                                                                                                                                                                                                                                                                                                                                                                                              94
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Pred. No. 4.8e+04;
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H62825
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11;
Tel: 314 286 1800
Fax: 314 286 1810
                                                                                            Unpublished
Contact: Wilson RK
                                                                                                                                      ,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J., Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Trevaskis,B., Waterston,R., Williamson,A., Wohldmann,P. and Wilson,R.
The WashU-Merck EST Project
                                                                                                                                                                                                                                   Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.

1 (bases 1 to 73)

Hillier L., Clark, N., Dubuque, T., Elliston, K., Hawkins, M., Holman
                                                                                                                                                                                                                                                                                                                                                                                      EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                       yr46e04.sl Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:208350 3' similar to gb:M22918 MYOSIN LIGHT CHAIN ALKALI, SMOOTH-MUSCLE ISOFORM (HUMAN);, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  H62825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6 AGCTACAACGA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zuechtungsforschung, Carl-von-Linne-Weg 10, Koeln, 50829, Germann This sequence is recovered from the left border of the T-DNA. It indicates an insertion close to or within gene Atj53810. The sequences are generated at the MPI for Plant Breeding Research in the context of the GABI-Kat project. GABI-Kat is part of the Germ Plant Genomics program designated 'GABI'. Information on line
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3 (bases 1 to 58)
Strizhov,N., Rosso,M., Li,Y. and Weisshaar,B.
Direct Submission
                                            Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      availability can be found at: http://www.mpiz-koeln.mpg.de/GABI-Kat/.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ROSSO,M., Strizhov,N., Li,Y., Reiss,B., Dekker,K. and Weisshaar, A new Arabidopsis thaliana T-DNA mutagenised population (GABI-Ka
                                                                                                                                                                                                                                                                                                                                                                                                               H62825.1 GI:1017171
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ilarity 100.0%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /Clone lib="Arabidopsis thaliana T-DNA insertion lines"
/note="PCR was performed on DNA from Arabidopsis thaliana
plants (T1) which were transformed with the T-DNA from
vector pAC161. The lines contain one or more T-DNA
insertions. The DNA fragment(s) resulting from the PCR
were directly sequenced to determine the genomic sequence
flanking the insertion. Sequences displaying significant
similarity to the A. thalaina nuclear genome sequence were
processed for submission. T-DNA derived sequences were
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 organism="Arabidopsis thaliana"
/mol type="genomic DNA"
/strain="Columbia 0"
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Pred. No.
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. 6.6e+04;
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BI865456
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ORIGIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11;
Email: zbrafish@watson.wustl.edu

CDNA Library constructed by S. Lin DNA Sequencing by: Washington

University Genome Sequencing Center Clone distribution: the

I.M.A.G.E. Consortium/LLNL, send email to: info@image.llnl.gov
                                                                                                           Contact: Stephen L. Johnson
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. J
                                                                                                                                                                                                                          Clark, M., Johnson, S.L., Lehrach, H., Lee, R., Li, F., Marra, M., Eddy, S., Hillier, L., Kucaba, T., Martin, J., Beck, C., Wylie, T., Underwoo, K., Steptoe, M., Theising, B., Allen, M., Bowers, Y., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Schurk, R., Ritter, E., Kohn, S., Shin, T., Jackson, Y., Cardenas, M., McCann, R., Waterston, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Seg primer: Promega -21ml3
High quality sequence stop: 1.
Location/Qualifiers
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                                                                             Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                           Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes
; Cyprinidae; Danio.
                                                                                                                                                                                                                                                                                                                                                                                                         Danio rerio
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ft22h12.xl Zebrafish neuronal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This clone is available royalty-free through LINL; contact the IMAGE Consortium (info@image.llnl.gov) for further information. Trace considered overall poor quality
                                                                                                                                                                      WashU Zebrafish EST Project 1998
Unpublished
                                                                                                                                                                                                                and Wilson, R.
                                                                                                                                                                                                                                                                                                                                                                                                                            Danio rerio (zebrafish)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    , mRNA sequence.
                                                                                                                                                                                                                                                                                                                           (bases 1 to 82)
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/clone="IMAGE:208350"
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mol_type="mRNA"
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Pred. No. 7.2e+04;
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MAGE:5082479
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                                                                                                                                                                                                                                                                  High quality sequence stop: 84.
                                                                                                                                                                                                                                                                                                    Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error: 0
Plate: 0208 row: H column: 05
Seq primer: CACACAGGAAACAGCTATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Dunn,D., Aoyagi,A., Barber,M., Beacorn,T., Duval,B., Hamil,C.,
Islam,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Reilly
,M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia; 1 (bases 1 to 84)
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                                                                                                                                                                                                                                                                                                                                                                                     Tel: 801 585 5606
Fax: 801 585 7177
                                                                                                                                                                                                                                                                                                                                                                                                                                                               University of Utah
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Robert B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mouse whole genome
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/lab_host="PH10B (phage-resistant)"
/lab_host="PH10B (phage-resistant)"
/clone_libe"Tobrafish neuronal"
/note="Organ: brain; Vector: pBluescript (modified);
Site_1: DraIII(Y); Site_2: DRAIII(X); Library is cloned
directionally between the DraIII(X) and DraIII(Y) sites
and has been amplified. Library constructed by S. Lin. "
a 14 c 7 g 42 t
                                                                                                                                                                                                                                                                                                                                                                                                                                               Biomedical Polymers Research Bldg.,
                                      musculus C57BL/6J (female) was obtained
                                  /lab host="E. coli strain XL10-Gold, T1-resistant, F-"
/lab host="E. coli strain XL10-Gold, T1-resistant, F-"
/clone lib="Mouse 10kb plasmid UUGC2M library"
/note="Vector: PWD42nv; Purified genomic DNA from M.
musculus C57BL/6J (female) was obtained from the Jackson
                  Laboratory Mouse DNA Resource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
(http://www.jax.org/resources/documents/dnares/). The DNA
                                                                                                                                  /db_xref="taxon:10090"
/clone="UUGC2M0208H05"
                                                                                                                                                                      mol_type="genomic DNA"
strain="C57BL/6J"
                                                                                                                                                                                                          organism="Mus musculus"
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E., Pedersen,T., Rei
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                                                                                                                                                                                                                                                                                                                                                               Trace considered overall poor quality Insert Length: 764 Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                     CDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: cgapbs-r@mail.nih.gov
Tissue Procurement: David N. Louis, M.D., Myrna R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 90)
NCI/NINDS-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute / National Institute of Neurological
Disorders and Stroke, Brain Tumor Genome Anatomy Project
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Seq primer: -40UP from Gibco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bonaldo, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                                            quality sequence stop: 1.
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/clone_lib="NCI_CGAP_Brn25"
/note="Organ: brain; Vector: pT7T3D-Pac (Pharmacia) with
modified polylinker; Site_1: Not I; Site_2: Eco RI; 1st
                                                                                         /organism="Homo sapiens"
/mol_type="mRNA"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:2468350"
/tissue_type="anaplastic oligodendroglioma"
/lab_host="DH10B"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tel: 858 453 4100 x1752
Fax: 858 558 6379
Email: ecker@salk.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Salk Institute Genomic Analysis Laboratory
The Salk Institute for Biological Studies
10010 N. Torrey Pines Road, La Jolla, CA 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alonso,J.M., Leisse,T.J., Barajas,P., Chen,H., Cheuk,R.,
C., Jeske,A., Karnes,M., Kim,C.J., Parker,H., Prednis,L
, Zimmerman,J. and Ecker,J.R.
A Sequence-Indexed Library of Insertion Mutations in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosid; eurosids II; Brassicales; Brassicaceae; Arabidopsis.

1 (bases 1 to 90)
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GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SALK 087935 Arabidopsis thaliana TDNA insertion lines Arabidopsis thaliana genomic clone SALK_087935, genomic survey sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This is single pass sequence recovered from the left border of TDNA. This sequence lies within an annotated exon of At2g27170.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Arabidopsis Genome 
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Joseph R. Ecker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Arabidopsis thaliana (thale cress)
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                                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TDNA tagged
                                                                                                                                                                        /clone="SALK 087935"
/clone lib="Arabidopsis thaliana TDNA insertion lines"
/note="FCR was performed on Arabidopsis thaliana lines
each of which contains one or more TDNA insertion
elements. The resultant fragment for each line was
directly sequenced to determine the genomic sequence at
the site of insertion. Details of the protocols used can
be found at http://sigmal.salk.edu/tdna_protocols.html"
a 17 c 14 g 25 t
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                                                                                                                                                                                                                                                                                                                                                                            organism="Arabidopsis"
/mol_type="genomic DNA"
/strain="Columbia 0"
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84.6%;
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84.6%;
                                                                                                Score 11; DB 28;
Pred. No. 7.8e+04;
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Pred. No. 7.8e+04;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       62
                                                                                                                                                                                                                                                                                                                                                                 96 bp DNA linear GSS 03-OCT-201
1M0216F14F Mouse 10kb plasmid UUGC1M library Mus musculus genomic
clone UUGC1M0216F14 F, genomic survey sequence.
Contact: Robert B. Weiss
University of Utah Genome Center
University of Utah
Rm. 308, Biomedical Polymers Research Bldg.,
                                                                                                                                   Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Duval, B., Hamil, C., Islam, H., Longacre, S., Mahmoud, M., Meenen, E., Pedersen, T., Reilly, M., Rose, M., Rose, R., Stokes, R., Tingey, A., von Niederhausern, A. and Wright, D., Weiss, R.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (20-NOV-2002) Shusei Sato, Kazusa DNA Research Institute, The First Laboratory for Plant Gene Research; 2-6-7 Kazusa-kamatari, Kisarazu, Chiba 292-0818, Japan (E-mail:ssato@kazusa.or.jp, URL:http://www.kazusa.or.jp/en/plant/, Tel:81-438-52-3935(ex.2336), Fax:81-438-52-3934)
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                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus 1 (bases 1 to 96)
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Published Only in Database (2002)
2 (bases 1 to 91)
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosids; eurosids I; Fabales; Fabaceae; Papilionoideae; Loteae;
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                                                                                                  plasmid inserts
                                                                                                                                                                                                                                                                                 Mus musculus
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                                                                                                                         whole genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone="LjB11a20_f"
/clone_lib="genomic BAC library"
/note="VECTOR:pBeloBBC11"
23 c 18 g 24 t
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/mol_type="genomic DNA"
/strain="Miyakojima MG-20"
/db_xref="taxon:34305"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11;
                                             Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Christopher Moskaluk, M.D.,
Emmert-Buck, M.D., Ph.D.
                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 49) NCI-CCAP http://www.ncbi.nlm.nih.gov/ncicgap. National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                                   tx44d07.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IN similar to SW:R23A_HUMAN P54725 UV EXCISION REPAIR RAD23 HOMOLOG A ;, mRNA sequence.
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Location/Qualifiers
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Fax: 801 585 7177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AI681141
                                                                                                                                         Unpublished
                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                          AI681141.1 GI:4891323
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cDNA Library Preparation: M. Bento Soares, Ph.D. cDNA Library Arrayed by: Greg Lennon, Ph.D.
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                                                                                                                                                                                                                                                                                                                            sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with 74 DNA polymerase and 74 polymucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agazose gel electrophoresis. Vector DNA was prepared from a derivative of pwh92 (gi|4732114|gb|AF129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."
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                                                                                                                                                                  Gene Index
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/note="Vector: PWD42nv; Purified genomic DNA from M.
musculus C57BL/6J (male) was obtained from the Jack
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Laboratory Mouse DNA Resource
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/strain="C57BL/6J"
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                                                                                                                                                                                                                                                                                                                                                                                    Suzuki,Y., Taira,H., Tsunoda,T., Mizushima-Sugano,J., Sese,J., Hat, Ota,T., Isogai,T., Tanaka,T., Morishita,S., Okubo,K., Sakaki,Y., Nakamura,Y., Suyama,A. and Sugano,S. biverse transcriptional initiation revealed by fine, large-scale mapping of mRNA start sites mapping of mRNA start sites SMBO Rep. 2 (5), 388-393 (2001)
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AU106358 Sugano Homo sapiens
HEP02980, mRNA sequence.
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1 (bases 1 to 50)
                                                                                                                      Department of Virology
Institute of Medical Science, University of Tokyo
Institute of Medical Science, University of Tokyo
4-6-1, Shirokanedai, Minatoku, Tokyo 108-8639, Japan
Email: ysuzuki@ims.u-tokyo.ac.jp
Email: ysuzuki@ims.u-tokyo.ac.jp
Suzuki,Y., Yoshitomo-Nakagawa,K., Maruyama,K., Suyama,A. and Sugano
Suzuki,Y., Yoshitomo-Nakagawa,K., Maruyama,K., Suyama,A. and Sugano
,S. Construction and characterization of a full length-enriched and
,S. Construction and characterization of a full length-enriched and
,S. cend-enriched cDNA library. Gene 200 (1-2), 149-156 (1997).

a 5'-end-enriched cDNA library. Gene 200 (1-2), 149-156 (1997).
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/lab_host="DH108"
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/mol_type="mRNA"
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/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
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Pred. No. 8e+04;
0; Mismatches 2;
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1 (bases 1 to 52)
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similar to
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Email: est@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the clone is available royalty-free through LLNL; contact the clone is available royalty-free through LLNL; contact the contact the clone is available royalty-free through LLNL; contact the contact th
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Fax: 314 286 1810
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4444 Forest Park Parkway, Box 8501, St. Louis, MO
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/clone | 10= Noares NhiMPu S1"
/note = Torgan: mixed (see below); Vector: pTTT3D-Pac
/note = Torgan: mixed (see below); Vector: Site 1: Not I;
(Pharmacia) with a modified polylinker; Site 1: Not I;
(Pharmacia) with a modified polylinker; Site 1: Not I;
(Pharmacia) with a modified polylinker; Site 1: Not I;
Normalized libraries (melanocyte 2NbHM, pregnant uterus
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Soares NhHMPu_S1 Homo sapiens cDNA clone IMAGE:769005 5'
SW:HESI_MOUSE P35428 TRANSCRIPTION FACTOR HES-1. ;, mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /tissue_type="Pooled human melanocyte, fetal heart, pregnant uterus"
/lab host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/mol type="mRNA"
/db_xref="GDB:5975323"
/db_xref="taxon:9606"
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Pred. No. 8.2e+04
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Best Local Similarity
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SALK 131129.40.10.x Arabidopsis thaliana TDNA insertion lines
Arabidopsis thaliana genomic clone SALK_131129.40.10.x, genomic
                                                                                                      vd94e08.rl Soa
5' similar to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Talk Institute Genomic Analysis Laboratory (SIGnAL)
The Salk Institute for Biological Studies
10010 N. Torrey Pines Road, La Jolla, CA 92037, USA
Tel: 858 453 4100 x1752
Fax: 858 558 6379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           i (bases 1 to 52)
Alonso, J.M., Leisse, T.J., Barajas, P., Chen, H., Cheuk, R., Gadrinab, C., Jeske, A., Karnes, M., Kim, C.J., Parker, H., Prednis, L., Shinn, I, Zimmerman, J. and Ecker, J.R.
A Sequence-Indexed Library of Insertion Mutations in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosid; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                          AA433099
AA433099.1
                                                                                                                                                  AA433099
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This is single pass sequence recovered from the left border of TDNA. This sequence lies within an annotated intron of At4g38910.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Joseph R. Ecker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished
                                                                                    sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Arabidopsis Genome
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BZ765391
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  musculus (house mouse)
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                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ecker@salk.edu
                                                                                                                                                                                                                                                                                                                                                                                                                            /clone_lib="Arabidopsis thallana lines /note="PCR was performed on Arabidopsis thallana lines each of which contains one or more TDNA insertion elements. The resultant fragment for each line was directly sequenced to determine the genomic sequence at the site of insertion. Details of the protocols used can be found at http://signal.salk.edu/tdna_protocols.html" a 11 c 8 g 17 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /clone="SALK 131129.40.10.x"
/clone_lib="Arabidopsis thaliana TDNA insertion lines"
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/strain="Columbia 0"
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                                                                                                 58 bp mRNA linear EST 22
Soares mouse NbMH Mus musculus cDNA clone IMAGE
to SW:ATP6_MOUSE P00848 ATP SYNTHASE A CHAIN ;,
                                          GI:2116529
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75.0%;
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Pred. No. 8.2e+04;
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AZ342599/c
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Marra, M., Hillier, L., Allen, M., Bowles, M., Dietrich, N., Dubuque, T., Geisel, S., Kucaba, T., Lacy, M., Le, M., Martin, J., Morris, M., Schellenberg, K., Steptoe, M., Tan, F., Underwood, K., Moore, B., Theisting T., Morris, M., Tan, F., Underwood, K., Moore, B., Theisting T., Morris, M., Tan, F., Underwood, K., Moore, B., Theisting T., Theisting T., Moore, B., Theisting T., Th
             Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus

1 (bases 1 to 59)
                                                                                                                                               AZ342599
AZ342599.1 GI:10419997
GSS.
Mus musculus (house mouse)
                                                                                                                                                                                                                                                                        AZ342599 59 bp DNA linear 1M0075C18R Mouse 10kb plasmid UUGC1M library Mus n clone UUGC1M0075C18 R, genomic survey sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            l Similarity 85.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Marra M/Mouse EST project
WashU-HHMI Mouse EST project
WashIngton University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus
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Possible reversed clone: similarity on wrong strand
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Fax: 314 286 1810
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: mouseest@watson.wustl.edu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATGGCTACAACGA 3
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/lab_host="DH10B"
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mol_type="mRNA"
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85.7%;
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Barber, M.,
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Pred. No. 8.5e+04;
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Beacorn, T.,
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Duval, B.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Robert B. Weiss
University of Utah Genome Center
University of Utah
Rm. 308, Biomedical Polymers Research Bldg.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Erro
Plate: 0075 row: C column: 18
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5
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                                                                                                                                 Zygosaccharomyces rouxi:
AL394587
AL394587.1 GI:12145628
                                                                                                                                                                            60 bp DNA linear GSS 17-JU CNS06E2T 13 end of clone AROAAO18A08 of library AROAA from strain CBS Zygosaccharomyces rouxii, genomic survey sequence.
                       Zygosaccharomyces rouxii
Zygosaccharomyces rouxii
Eukaryota; Pungi; Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetales; Saccharomycetaceae; Zygosaccharomyces.
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801 585 7177
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/clone lib="Mouse 10kb plasmid UUGCIM library"
/note="vector: PWD42nv; Purified genomic DNA from M.
musculus C57BL/6J (male) was obtained from the Jackson
laboratory Mouse DNA Resource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /db_xref="taxon:10090"
/clone="UUGC1M0075C18"
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/strain="C57BL/6J"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     de Montigny, J., Straub, M., Potier, S., Tekaia, F., Dujon, B., Wincker, P., Artiguenave, F. and Souciet, J. Genomic exploration of the hemiascomycetous yeasts: 8. Zygosaccharomyces rouxii
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEBS Lett.
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                                                                                                                                                                                                                                                                A CHAIN ;, mRNA sequence.
AA070413
                                   Hillier, L., Lennon, G., Becker, M., Bonaldo, M.F., Chiapelli, B., Chissoe, S., Dietrich, N., DuBuque, T., Favello, A., Gish, W., Hawkins, M., Hultman, M., Kucaba, T., Lacy, M., Le, M., Le, N., Mardis, E., Moor, M., Hultman, M., Kucaba, T., Lacy, M., Le, M., Le, N., Mardis, E., Moor
                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 61)
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/note="end : T3"
25 c 11 g
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/strain="CBS 732"
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/clone="AROAA018A08"
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Pred. No. 8.6e+04;
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Possible reversed clone: similarity on wrong
Insert Length: 3173 Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WARNING: There is evidence that suggests that the 384-well parent plate of this clone contains both human and mouse derived clones. Thus, the origin of this clone is uncertain. This caution should kept in mind should you use this clone.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ,B., Morris,M., Parsons,J., Prange,C., Rifkin,L., Rohlfing,T., Schellenberg,K., Soares,M.B., Tan,F., Thierry-Meg,J., Trevaskis,E., Underwood,K., Wohldmann,P., Waterston,R., Wilson,R. and Marra,M. Generation and analysis of 280,000 human expressed sequence tags Genome Res. 6 (9), 807-828 (1996)
                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This clone is available royalty-free through LINL; contact the thack Consortium (info@image.llnl.gov) for further information.
Contact: Kousaku Okubo, Naohiro Hori, Ryo Matoba,
                                                 Large scale cDNA sequencing for analysis qualitative aspects of gene expression Nat. Genet. 2, 173-179 (1992)
                                                                                                       and Matsubara, K.
                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                       mRNA sequence.
                                                                                                                                                                                                                                                                                         HUM000S149 Liver HepG2
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Fax: 314 286 1810
Email: est@watson.wustl.edu
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                                                                                                                                                                                                    Homo sapiens (human)
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                                              itative aspects of Genet. 2, 173-179
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/mol type="mRNA"
/db xref="GDB:3920316"
/db xref="taxon:9606"
/clone="IMAGE:530804"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hori, N., Matoba, R., Niiyama, T.,
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Pred. No. 8.7e+04;
0; Mismatches 2;
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cell line. Homo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished
Contact: Marra M/Mouse EST Project
WashU-HHMI Mouse EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 65)
Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubu, Marra,N., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 RGGCTAGCTACAACGA 16
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1-3 Yamada-oka,Suita,Osaka 565,Japan.
                                                                                                                                                                                                                                                                                                                             Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL;
IMAGE Consortium (info@image.llnl.gov) for further
                                                                                                                                                                                                                                                                                                                                                                                         Tel: 314 286 1800 Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                         Washington University School of MedicineP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The WashU-HHMI Mouse EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus
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AA499456.1
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Institute for Molecular and Cellular Biology
                                                                                                                                                                                                                                                                                        Seq primer: -28m13 rev1
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                                                                                                                                                                                                                                                                                                                MGI:531278
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/tissue_type="whole skin"
/dev_stage="11 weeks old"
/lab_host="$COLR (kanamycin resistant)"
/clome_lib="$Ctratagene mouse skin (#937313)"
/clome_lib="$tratagene mouse skin (#937313)"
/note="Organ: skin; Vector: pBluescript SK-; Si
/note="Organ: skin; Toloned unidirectionally. Prime
for. Whole skin from 11 week old C57BL/6 female
                                                                                                                                                                       /mol_type="mRNA"
/strain="C57BL/6"
/db_xref="taxon:10090"
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/mol_type="mRNA"
/db_xref="GDB:DOS7595E"
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/note="3'-directed regional cDNA library. Cleaved
and transformed into E.coli."
13 c 10 g 24 t
                                                                                                                                                     clone="IMAGE:919062"
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                                                                                                                                     sex="females"
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Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Zea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              survey sequence
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855 California Ave, Palo Alto, CA 94304, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Maize genomic sequences found using engineered RescueMu transposon
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Possible ligation site of ends cut by 2 different endonucleases Reverse complemented post-ligation sequence from source sequence. plate: 1007037 column: 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: walbot@stanford.edu
                                       l Similarity
12; Conserv
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RGGCTAGCTACAACGA 16
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                                                                                                                                         /clone_lib="1007 - RescueMu Grid H"
/clone="forgan: leaf; Vector: RescueMu (engineered from
/note="forgan: leaf; Vector: RescueMu (engineered from
/note="forgan: leaf; Vector: RescueMu (engineered from
/note="forgan: leaf; Vector: RescueMu (engineered from
/note: BglII;
pBlueScript backbone); Site 1: BamHI; Site 2: BglII;
pBlueScript backbone); Site 1 modified maize Mu transposon
RescueMu is a 4.9 kb, modified maize from total genomic DNA
designed to allow plasmid rescue from total genomic DNA
whits. For more information on RescueMu, 90 to the web
units. For more information on RescueMu, 90 to the web
site 'www.zmbb.iastate.edu' and follow the links for
'RescueMu.' Grid H was grown at Berkeley in 2001. DNA
'RescueMu.' Grid H was grown at Berkeley in 2001. DNA
was extracted from leaf punches, double digested using
was extracted from leaf punches, double digested using
banHI and BglII, and ligated to form circular plasmids.
DH10B cells were transformed and then screened on LB
plates with ampicillin."

11 a 15 c 26 g 13 t
                                         Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /mol_type="genomic_DNA"
/cultivar="mixed_background_W23/A188/B73"
/db_xref="taxon:4577"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           organism="Zea mays"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tissue_type="leaf"
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75.0%;
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Pred. No. 8.9e+04;
                                                              Score 10.8; DB 28
Pred. No. 8.9e+04;
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RescueMu Grid H Zea mays genomic, genomic
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TA184A08Q/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Constructed at the Institute for Genomic Research (TIGR), Rockville, MD. Genomic DNA isolated from a cloned population of Rockville, MD. Genomic DNA isolated from a cloned population of Trypanosoma brucei (TREU927/4 GUTat 10.1) was mechanically sheared trypanosoma brucei fixed distribution (to give a tight size distribution (to g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              genomic survey sequence.
AL473599
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T. brucei sheared genomic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hall, N., Bowman, S.,
Chillingworth, C., O:
Melville, S.E., Raja
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Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: nelsayed@tigr.org
Details of T. brucei sequencing at the Sanger Centre are available
at http://www.sanger.ac.uk/Projects/T_brucei/.
                                                                                                                                                                                                                                                                                                                                               BG447495
EST000018 Rat Liver Express Library
liver000018, mRNA sequence.
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GGCCAAGGTACAACGA
1 (bases 1 to 66) Li,y.C., Xu,C.S. and Zh,y.H. Cloning the specific expressed genes in partial hepatectomy rat liver by suppression subtractive hybridization
                                                                                                                                           Rattus norvegicus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
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/clone="184a08"
11 c 11 g
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/mol_type="genomic DNA"
/strain="TREU927"
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Rajandream,M.A. and Barrell,B.
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75.0%;
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rmond, D., Harris, B., El-Sayed, N., Hou, L.,
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Pred. No. 8.9e
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Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dublesel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B. Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and Waterston,R.
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                                                                                                                                                                                                                                                                                                                                                             Contact: Marra M/Mouse EST Project
WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Porest Park Parkway, Box 8501, St. Lc
                                                                                                                                                           Trace considered overall poor quality possible reversed clone: similarity on wrong strand Seq primer: -28ml3 rev2 ET from Amersham High quality sequence stop: 1.
                                                                                                                                                                                                                                                             Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
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Jianshe road, Xinxiang, China
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/dev_stage="embryonic day 17 post-fertilization"
/clone_lib="Rat Liver Express Library"
17 c 15 g 16 t
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/strain="Sprague-Dawley"
/db_xref="taxon:10116"
/clone="IMAGE:1163281"
/cell_line="C2C12"
                                                         /mol_type="mRNA"
/strain="C3H"
                                                                                                                                        ocation/Qualifiers
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                                        db_xref="taxon:10090"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Ruan Y
Contact: Ruan Y
Laboratory of Molecular Biotechnology
Genome Institute of Singapore
Genome Institute of Singapore #05-01, Singapore 117528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12;
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Mathavan, S., Wei, C., Thoreau, H., Chia, J.M.
Genome Institute of Singapore, Zebrafish Education
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bukaryota; Metazoa; Chordata; Craniata;
Actinopterygii; Neopterygii; Teleostei;
; Cyprinidae; Danio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CB366166
2F001-P00049-DPE-F2-D F10 GISZF001 Danio rerio cDNA clone
IMAGE:6910149 5' similar to fp15a03 yl zebrafish gridded kidney
Danio rerio cDNA clone IMAGE:4729612 5' similar to WP:CE25522
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                                                                                                                                                                                                                                                                                                                                                                                              Email: gisry@nus.edu.sg
GIS Clone ID: ZF001-P00049-PP_L20
                                                                                                                                                                                                                                                                                                                                                                                                                                     Tel: +65 6827 5200
Fax: +65 6827 5201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Danio rerio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Danio rerio (zebrafish)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CB366166.1 GI:29016477
                                                                                                                                                                                                                                                                                                                           Plate: ZF001-P00049-DPE-F2-D
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                                                                                                                                                                                                                                                                                                                                                                               PCR PRimers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Y61A9LA.E, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                FORWARD: M13
                                                                                                                                                                                                                                                                     primer: CCGCATAACTTGTATAGCA
h quality sequence stop: 67.
    Location/Qualifiers
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/note="Vector: pDNR-LIB; Site_1: Sfi A (GGCCATTACGGCC);
/note="Vector: pDNR-LIB; Site_1: Sfi A (GGCCATTACGGCC);
Site_2: Sfi B (GGCCGCCTGGCC);
Priming sequence: 5.ATTCTAGA GGCCGAGGCGGCC
GACATG(T)30VN; Directionally cloned,
Sfi A site GGCCATTACGGCC;
Sfi A site GGCCATTACGGCC;
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                                                                                                            /tissue_type="Embryo"
/dev stage="7 Different embryonic Stages( From just
fertIlized Embryos to 72 hours just hatched baby fish)"
/lab_host="DH10B"
                                                                                                                                                                                                                    /organism="Danio rerio"
/mol_type="mRNA"
                                                                                                                                                                                 /db_xref="taxon:7955"
/clone="IMAGE:6910149"
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85.7%;
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Pred. No. 9e+04;
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Ostariophysi; Cypriniformes
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EST Collection
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ORIGIN BASE COUNT

19

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Singapore" 19 c

14 g

15 t

Mathavan,

site GGCCGCCTCGGCC; 3' linker/adaptor sequence: same as the priming sequence; Average insert size: 2kb; For pCR insert analysis: Use M13 Forward and reverse primers; Library Amplified Recombinants (inserts): 98%; Library

AAGCAGTGGTATCAACGCAGAGTGGCC;
ite GGCCGCCTCGGCC; 3' lin

3' cloning site: Sfi

complexity: 5x106; Full-length construction (method): SMART, a Clontech method; Library constructed by: S.

Chia-Lin Wei, and Yijun Ruan Genome Institute of

Similarity

67.5%; 75.0%;

Score 10.8; DB 14; Pred. No. 9e+04;

Length

67;

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D11778/c
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D11778
D11778.1 GI:2155059
EST.
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HUMHM01E11 Liver HepG2 cell line. Homo sapiens cDNA clone hm01e11,
                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Kousaku Okubo, Naohiro Hori, Ryo Matoba, Toshiyuki Niiyama, Atsushi Fukushima, Yuko Kojima & Kenichi Matsubara
Institute for Molecular and Cellular Biology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Large scale cDNA sequencing for analysis of quantitative and qualitative aspects of gene expression Nat. Genet. 2, 173-179 (1992)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Okubo, K., Hori, N., Matoba, R., Niiyama, T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota, Metazoa, Chordata, Craniata, Vertebrata,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae,
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AW104004 71 bp mRNA linear EST 20-OCT-1999 xd63h05.xl NCI_CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2598489 3',
                                                                                                              1 RGGCTAGCTACAACGA 16
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/note="3'-directed regional cDNA library. Cleaved by MboI
and transformed into E.coli."
14 c 8 g 23 t
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/db_xref="taxon:9606"
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Search completed: January 21, 2004, 08:16:07 Job time : 1448 secs

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cDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
Seq primer: -40UP from Gibco.
Location/Qualifiers
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1 (bases 1 to 71)

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.

National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
47
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Emmert-Buck, M.D., Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Robert Strausberg, Ph.D
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nilarity 75.0%;
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/note="Organ: ovary; Vector: pCMV-SPORT6; Site_1: Sall;
/note="Organ: ovary; Vector: pCMV-SPORT6; Site_1: Spindle
/note="Organ: ovary; Vector: pCMV-SPORT6; Site_1: Sall;
/note="Organ: ovary; Vector: pCMV-SPORT6; Site_1: ova
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mol_type= """":9606"
/db_xref="taxon:9606"
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        62
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Pred. No. 9.2e+04;
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1: /cgn2_6/ptodata/2/ina/5A_COMB.seq:*
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3: /cgn2_6/ptodata/2/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/2/ina/6B_COMB.seq:*
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S-09-270-140A-51
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Patent No. 6562570
GENERAL INFORMATION:
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CURRENT APPLICATION NUMBER: US/09/536,393
CURRENT FILING DATE: 2000-03-28
EARLIER APPLICATION NUMBER: 60/127,529
EARLIER FILING DATE: 1999-04-02
NUMBER OF SEQ ID NOS: 31
SOPTWARE: Patentin Ver. 2.1
SEQ ID NO 19
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Matches 14; Conserv
APPLICANT: Rossi, John J.
APPLICANT: Scherr, Michaela
APPLICANT: Scherr, Michaela
APPLICANT: Riggs, Arthur D.
TITLE OF INVENTION: Method for Identifying Accessible Binding Sites
FILE REFERENCE: 1954-285
CURRENT APPLICATION NUMBER: US/09/536,393
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APPLICANT: Scherr, Michaela
APPLICANT: Riggs, Arthur D.
TITLE OF INVENTION: Method for Identifying Accessible Binding Sites on RNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 16
TYPE: DNA
ORGANISM: Artificial Sequence
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No. 6562570
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US-08-479-255A-161
US-08-479-724A-140
US-08-479-724A-161
US-08-479-724A-161
US-08-479-724B-160
US-08-472-256B-140
US-08-472-256B-160
US-08-472-256B-161
US-08-472-256B-161
US-08-472-256B-161
US-08-952-793-140
US-08-952-793-160
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US-08-687-421-282
US-08-653-648A-47
US-08-471-985A-75
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Pred. No. 7
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US-08-472-255A-146
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Matches
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Sequence 25, Application US/09270140A
Patent No. 6361941
GENERAL INFORMATION:
APPLICANT: Todd, Alison
APPLICANT: Todd, Alison
APPLICANT: Cairis, Muray
APPLICANT: Cairis, Muray
FIITL OF INVENTION: Catalytic Nucleic Acid base
PILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/799,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
SOFTWARPE: Datatin vor. 21
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APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray-
APPLICANT: Cairns, Murray-
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&C1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 23
LENGTH: 29
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SEQ ID NO 20
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EARLIER APPLICATION NUMBER: 60/127,529
EARLIER FILING DATE: 1999-04-02
NUMBER OF SEQ ID NOS: 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION: Description OTHER INFORMATION: N-ras codon OTHER INFORMATION: U)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA ORGANISM: Artificial Sequence , FEATURE:
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ORGANISM: Artificial Sequence
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Pred. No. 7.
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Pred. No. 7
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US-09-270-140A-55
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LENGTH: 29
                 SEQ ID NO 5
LENGTH: 31
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                                                      TITLE OF INVENTION: Zymogenic Nucleic Acid Detection Methods, And Related TITLE OF INVENTION: Molecules And Kits FILE REFERENCE: JJ1770SequenceListing CURRENT APPLICATION NUMBER: US/09/253,955

CURRENT FILING DATE: 1999-02-22

EARLIER FILING DATE: 1999-02-22

EARLIER APPLICATION NUMBER: 60/076,899

EARLIER FILING DATE: 1998-03-05

NUMBER OF SEQ ID NOS: 11

SOFTWARE: Patentin Ver. 2.0
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APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
FILE REFERENCE: J&J1799
CURRENT FAPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
COUNTRY NOS: 96
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APPLICANT: Fuery, Caroline J
APPLICANT: Cairns, Murray J
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EQ ID NO 55
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TYPE: DNA
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; ORGANISM: synthetic construct US-09-253-955-5
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                                                              ; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: DNAzyme
; OTHER INFORMATION: codon 542 - Cystic Fibrosis
US-09-270-140A-42
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US-09-637-405-5
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SEQ ID NO 42
LENGTH: 31
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Best Local Similarity
Matches 14; Conserv
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                                                                                                                                                                                                          FILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
                                                                                                                                                                                                                                                                                                  APPLICANT: Todd, Alison
APPLICANT: Puery, Caroline
APPLICANT: Cairne, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid
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APPLICANT: Fuery, Caroline J
APPLICANT: Cairns, Murray J
                                                                                                                  TYPE: DNA ORGANISM: Artificial Sequence
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Pred. No. 7
                Score 14.8;
Pred. No. 7.
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Pred. No. 7
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                                Length 31;
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PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 45
LENGTH: 31
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US-09-270-140A-45
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US-09-270-140A-48
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GENERAL INFORMATION:
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LENGTH: 31
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CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
                                                                                   Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Todd, Alison APPLICANT: Fuery, Caro
                                                                                                                                                                                                                                                                           FILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1990-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Todd, Alison
APPLICANT: Fuery, Caro
APPLICANT: Cairns, Mur
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APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
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ORGANISM: Artificial Sequence
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                                                                                                                                               FEATURE: OTHER INFORMATION: Description of Artificial Sequence: DNAzyme for OTHER INFORMATION: Codon 551 - wildtype
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                                                                                                                                                                                                         ORGANISM: Artificial Sequence
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87.5%; Pred. No. 7.
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Pred. No. 7.9;
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- mutant (G to U)
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RESULT 13 US-09-270-140A-12

Sequence 12, Application US/09270140A Patent No. 6361941 GENERAL INFORMATION:

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; OTHER INFORMATION: Description of Artificial Sequence: DNAzyme for ; OTHER INFORMATION: Codon 51 - mutant (G to A) US-09-270-140A-51
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US-09-746-985B-5
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                                                                                                                                OTHER INFORMATION: PCR primer US-09-746-985B-5
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Patent No. 6361941
GENERAL INFORMATION:
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SEQ ID NO 51
LENGTH: 31
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SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 5
LENGTH: 31
                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: Todd, Alison V
APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
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Best Local
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CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
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APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
                                                                 Matches
                                                                               Best Local Similarity
                                                                                                 Query Match
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CURRENT APPLICATION NUMBER: US/09/746,985B
CURRENT FILING DATE: 2000-12-21
PRIOR APPLICATION NUMBER: 60/076,899
PRIOR FILING DATE: 1998-03-05
                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Cairns, Murray J
TITLE OF INVENTION: Zymogenic Nucleic Acid Detection Methods,
TITLE OF INVENTION: Molecules And Kits
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                  ORGANISM: Artificial Sequence FEATURE:
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Pred. No. 7
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Pred. No. 7.
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RESULT 15
US-09-270-140A-19
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US-09-270-140A-15
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APPLICANT: Todd, Alison
APPLICANT: Todd, Alison
APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
TILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
                                                                               Patent No. 6361941
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 15
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SEQ ID NO 12
LENGTH: 32
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Best Local Similarity
                                                                                                               Sequence 19, Application US/09270140A
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Patent No. 6361941
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TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
APPLICANT: Todd, Alison
APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
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ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
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Local Similarity 87.5%;
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Pred. No. 8;
2; Mismatches
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Pred. No. 8
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GENERAL INFORMATION:

APPLICANT: Todd, Alison
APPLICANT: Toddy, Alison
APPLICANT: Catroline
APPLICANT: Cairns, Murray
ITITLE OF INVENTION: Catalytic Nucleic Acid base
FILE REFERENCE: J631799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEO ID NOS: 96
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US-09-270-140A-58
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SEQ ID NO 28
LENGTH: 32
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SOFTWARB: PATENTIN Ver. 2.1
SEQ ID NO 19
LENGTH: 32
                                                                                                                                                                                                         Sequence 58, Application US/09270140A Patent No. 6361941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
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APPLICANT: Fuery, Carcoline
APPLICANT: Cairins, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
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CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
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ORGANISM: Artificial Sequence
FEATURE:
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11 AGGCTAGCTACAACGA 26
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Pred. No. 8;
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RESULT 19
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                                                              SEQ ID NO 53
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Best Local Similarity
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Patent No. 6361941
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LENGTH: 32
                                                                              CURRENT APPLICATION NUMBER: US/09/270,140A CURRENT FILING DATE: 1999-03-16 PRIOR APPLICATION NUMBER: 60/079,651 PRIOR FILING DATE: 1998-03-27 NUMBER OF SEQ ID NOS: 96 SOFTWARE: Patentin Ver. 2.1
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APPLICANT: Todd, Alison
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APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
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CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
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APPLICANT: Cairns, Murray
TITLE OFFICENTION: Catalytic Nucleic Acid base Diagnostic Methods
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          TYPE: DNA ORGANISM: Artificial Sequence
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FEATURE:
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                                                ENGTH: 34
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2; Mismatches
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; OTHER INFORMATION: Description of Artificial Sequence:DNAzyme
US-09-270-140A-6
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Query Match
Best Local Similarity
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Best Local Similarity
Matches 15; Conserv
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LENGTH: 35
TYPE: DNA
ORGANISM: Artificial Sequence
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APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
NUMBER OF SEQ ID NOS: 96
SOFTWARE: Patentin Ver. 2.1
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APPLICANT: Fuery, Caro
APPLICANT: Cairns, Muri
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CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
                                                                                                                               TYPE: DNA
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APPLICANT: Fuery, Caro
APPLICANT: Cairns, Mur
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APPLICANT: Cairns, Murray
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
                                                                                                         ORGANISM: Artificial Sequence
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US-09-270-140A-31
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Best Local :
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APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: JGAL199
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
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TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
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PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
SOFTWARE: Patentin Ver. 2.1
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APPLICANT: Fuery, Caro
APPLICANT: Cairns, Mur
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PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
                                                                                                                                                                                                LENGTH: 35
TYPE: DNA
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                                                                                                                                      OTHER INFORMATION: OTHER INFORMATION:
                                                                                                                                                                            ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
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                             RGGCTAGCHACAACGA 16
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AGGCTAGCTACAACGA 23
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                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                       Description of Artificial Sequence: DNAzyme for codon 74
                                                                          92.5%;
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87.5%; Pred. No. 8;
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                                                                          Score 14.8;
Pred. No. 8;
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                                                          Gaps
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; OTHER INFORMATION: Description of Artificial Sequence:DNAzyme for ; OTHER INFORMATION: codon 215 - mutant US-09-270-140A-36
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US-09-270-140A-36
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US-09-270-140A-34
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PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 34
LENGTH: 38
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Patent
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Best Local Similarity
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APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J179
FILE REFERENCE: J&J179
CURRENT FAPPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
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CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
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APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
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GGGCTAGCTACAACGA 25
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Pred. No. 8
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RESULT 26 US-09-270-140A-91

Sequence

91, Application US/09270140A

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              Sequence 85, Application US/08849567A
PATENT NO. 6326174
GENERAL INFORMATION:
APPLICANT: Joyce, Gerald F.
APPLICANT: Breaker, Ronald R.
TITLE OF INVENTION: ENZYMATIC DNA MOLECULES
FILE REFERENCE: SCR1943S
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SEQ ID NO 94
LENGTH: 39
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Best Local Similarity
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Best Local
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SEQ ID NO 91
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
CURRENT APPLICATION NUMBER: US/08/849,567A
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APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
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APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
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APPLICANT: Fuery, Caro
APPLICANT: Cairns, Mur
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                                                                                                                                                                                                                                                                                         Score 14.8;
Pred. No. 8
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Pred. No. 8
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US-08-849-567A-87
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                                                  Sequence 81, Application US/08849567A Patent No. 6326174 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR FILING DATE: 1995-06
PRIOR APPLICATION NUMBER:
PRIOR FILING DATE: 1994-12
NUMBER OF SEQ ID NOS: 101
SOFTWARE: Patentin Ver. 2.
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SEQ'ID NO 85
LENGTH: 47
TYPE: DNA
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Best Local Similarity
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APPLICANT: Breaker, Ronald R.
TITLE OF INVENTION: ENZYMATIC DNA MOLECULES
FILE REFERENCE: SCR19435
APPLICANT: Joyce, Gerald F.
APPLICANT: Breaker, Ronald R.
TITLE OF INVENTION: ENZYMATIC DNA MOLECULES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/08/849,567A
CURRENT FILING DATE: 1997-08-25
PRIOR APPLICATION NUMBER: PCT/US95/15580
PRIOR FILING DATE: 1995-12-01
PRIOR APPLICATION NUMBER: 08/472,194
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Patent No. 632617
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PRIOR FILING DATE: 1995-12-01
PRIOR APPLICATION NUMBER: 08/472,194
PRIOR FILING DATE: 1995-06-07
PRIOR PPLICATION NUMBER: 08/349,023
PRIOR FILING DATE: 1994-12-02
PRIOR FILING DATE: 1994-12-02
NUMBER OF SEQ ID NOS: 101
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ORGANISM: Artificial Sequence
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Pred. No. 8.3;
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CURRENT APPLICATION NUMBER: US/08/849,567A CURRENT FILING DATE: 1997-08-25

SCR1943S

FILE REFERENCE:

PRIOR APPLICATION NUMBER: PRIOR FILING DATE: 1995-1

1995-12-01

08/472,194 PCT/US95/15580

APPLICATION NUMBER:

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EARLIER FILING DATE: 1998-03-05;
NUMBER OF SEQ ID NOS: 11;
SOFTWARE: PatentIn Ver. 2.0;
SEQ ID NO 8;
LENGTH: 50;
TYPE: DNA
ORGANISM: synthetic construct
US-09-253-955-8
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US-09-637-405-8/c
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SEQ ID NO 81
LENGTH: 49
TYPE: DNA
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Patent No. 6140055
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TITLE OF INVENTION: Zymogenic Nucleic Acid Detection Methods, TITLE OF INVENTION: Molecules And Kits FILE REFERENCE: JJ1710SequenceListing CURRENT APPLICATION NUMBER: US/09/637,405 CURRENT FILING DATE: 2000-08-11 EARLIER APPLICATION NUMBER: 09/253,955 EARLIER FILING DATE: 1999-02-22
                                                                                                                    BENERAL INFORMATION:
APPLICANT: Todd, Alison V
APPLICANT: Fuery, Caroline J
APPLICANT: Cairns, Murray J
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APPLICANT: Cairns, Muxray J
TITLE OF INVENTION: Zymogenic Nucleic Acid Detection Methods,
TITLE OF INVENTION: Molecules And Kits
FILE REPERENCE: JJ1770SequenceListing
CURRENT APPLICATION NUMBER: US/09/253,955
CURRENT FILING DATE: 1999-02-22
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PRIOR FILING DATE: 1998-03-05
NUMBER OF SEQ ID NOS: 11
SOPTWARE: PACENTIN VEY: 2.0
SEQ ID NO 8
                                                SOFTWARE:
SEQ ID NO 86
                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Joyce, Gerald F.
APPLICANT: Breaker, Ronald R.
APPLICANT: Breaker RONAID R.
TITLE OF INVENTION: ENZYMATIC DNA MOLECULES
                                                                                                                                                                                                                                                                                                                                        Sequence 86, Application US/08849567A Patent No. 6326174
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                                                                                                                                       CURRENT APPLICATION NUMBER: US/08/849,567A
CURRENT FILING DATE: 1997-08-25
PRIOR APPLICATION NUMBER: PCT/US95/15580
PRIOR FILING DATE: 1995-12-01
PRIOR APPLICATION NUMBER: 08/472,194
PRIOR FILING DATE: 1995-06-07
PRIOR FILING DATE: 1995-06-07
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APPLICANT: Cairns, Murray J
TITLE OF INVENTION: Zymogenic Nucleic Acid Detection Methods, And Related
TITLE OF INVENTION: Molecules And Kits
FILE REFERENCE: SequenceListing
CURRENT APPLICATION NUMBER: US/09/746,985B
CURRENT FILING DATE: 2000-12-21
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                                                                                                       PRIOR APPLICATION NUMBER: 08/
PRIOR FILING DATE: 1994-12-02
                                                                                                                                                                                                                                                    FILE REFERENCE:
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ORGANISM: Artificial Sequence
FEATURE:
ORGANISM: Artificial Sequence
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; OTHER INFORMATION: Description of Artificial Sequence:
US-08-849-567A-86
                                                                                                ; TYPE: DNA
; ORGANISM: synthetic
US-09-637-405-2
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APPLICANT: Todd, Alison V
APPLICANT: Fuery, Caroline J
APPLICANT: Cairns, Murray J
                                                                                                                                                                    SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 2
                                               Query Match
Best Local Similarity
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Patent No. 6201113
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APPLICANT: Fuery, Caroline J
APPLICANT: Fuery, Caroline J
APPLICANT: Guins, Murray J
APPLICANT: Cairins, Murray J
TITLE OF INVENTION: Zymogenic Nucleic Acid Detection Methods, And Related
TITLE OF INVENTION: Molecules And Kits
FILLE REPERENCE: JU1770/SequenceListing
CURRENT APPLICATION NUMBER: US/09/253,955
CURRENT APPLICATION NUMBER: 60/076,899
EARLIER APPLICATION NUMBER: 60/076,899
EARLIER FILING DATE: 1998-03-05
NUMBER OF SEQ ID NOS: 11
NUMBER OF SEQ ID NOS: 11
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Patent No. 6140055
                                                                                                                                                                                               TITLE OF INVENTION: Zymogenic Nucleic Acid Detection Methods, And Related TITLE OF INVENTION: Molecules And Kits FILE REFERENCE: JU1770SequenceListing CURRENT APPLICATION NUMBER: US/09/637,405 CURRENT FILLING DATE: 2000-08-11 EARLIER APPLICATION NUMBER: 09/253,955 EARLIER FILLING DATE: 1999-02-22 NUMBER OF SEQ ID NOS: 11
                                                                                                                                                     LENGTH: 59
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US-09-253-955-10
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US-09-253-955-10/c
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SEQ ID NO 10
LENGTH: 60
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APPLICANT: Todd, Alison V
APPLICANT: Puery, Caroline J
APPLICANT: Cairns, Murray J
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SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 2
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Patent No. 6140055
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APPLICANT: Fuery, Caroline J
APPLICANT: Fuery, Caroline J
APPLICANT: Cairns, Murray J
TITLE OF INVENTION: Zymogenic Nucleic Acid Detection Methods, And Related
TITLE OF INVENTION: Molecules And Kits
TILE REFERENCE: SequenceListing
CURRENT FILING DATE: 2000-12-21
PRIOR APPLICATION NUMBER: US/09/746,985B
CURRENT FILING DATE: 2000-12-21
PRIOR APPLICATION NUMBER: 60/076,899
PRIOR FILING DATE: 1998-03-05
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CURRENT FILING DATE: 1999-02-22
EARLIER APPLICATION NUMBER: 60/076,899
EARLIER FILING DATE: 1998-03-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQ ID NOS: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Zymogenic Nucleic Acid Detection Methods, And Related TITLE OF INVENTION: Molecules And Kits FILE REFERENCE: JJ1770SequenceListing
                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
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RESULT 39 US-09-637-405-10/c

Sequence 10, Application US/09637405

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GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Todd, Alison
APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 95
LEBUCTH: 60
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence:3" zymogene
OTHER INFORMATION: primer eK42Dz2
US-09-270-140A-95
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TITLE OF INVENTION: Molecules And Kits
FILE REFERENCE: JJ1770SequenceListing
CURRENT APPLICATION NUMBER: US/09/637,405
CURRENT FILING DATE: 2000-08-11
FARLIER APPLICATION NUMBER: 09/253,955
EARLIER FILING DATE: 1999-02-22
NUMBER: OF SEQ ID NOS: 11
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 10
LENGTH: 60
TYPE: DNA
RCANISM: Synthetic construct
US-09-637-405-10
Search completed: January 21, 2004, 08:17:14 Job time : 47 secs
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APPLICANT: Fuery, Caroline J
APPLICANT: Cairns, Murray J
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32 GGGCTAGCTACAACGA 17
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3: /cgn2 6/ptodata/1/pubpna/US06 NEW PUB.seq:*

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US-09-877-478-6585

US-09-878-7478-6585

US-09-848-754A-9645

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APPLICANT: Blatt, Larry
APPLICANT: Vaish, Narenda
FITTE OF INVENTION. A Process for the Detection of Nucleic Acid
FILE REFERENCE: MBHB00-816-C (700/002)
FILE REFERENCE: MBHB00-816-C (700/002)
FURENT APPLICATION NUMBER: US/09/877,526A
CURRENT FILING DATE: 2001-03-06
FRIOR APPLICATION NUMBER: 60/187,128
PRIOR FILING DATE: 2000-03-06
NUMBER OF SEQ ID NOS: 49
SOFTMARE: Patentin version 3.0
SEQ ID NO 21
LENGTH: 16
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
COUNTY INFORMATION. Description of Artificial Sequence: Enzyme
                                                                                                                                                                                                                                           US-09-877-526A-21
                      OTHER INFORMATION: Description of Artificial Sequence: US-09-877-526A-21
                                                                                                                                                                                                                  Sequence 21, Application US/09877526A Patent No. US20020102568A1 GENERAL INFORMATION:
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Best Local Similarity
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APPLICANT:
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APPLICANT: Usman, Nassim
APPLICANT: McSwiggen, Jim
APPLICANT: Zinnen, Shawn
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Seiwert, Scott
Haeberli, Pete
Chowrira, Bharat
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US-09-730-289B-3177
US-09-730-289B-3180
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US-09-730-289B-3182
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US-09-730-289B-3187
US-09-730-289B-3199
US-09-730-289B-3200
US-09-730-289B-3200
US-09-730-289B-3203
US-09-730-289B-3203
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US-09-730-289B-3203
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US-09-730-289B-3172
US-09-730-289B-3173
Score 14.8; DB Pred. No. 54;
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         Length 16;
                                Enzymatic Nucleic Acid Moti
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; OTHER INFORMATION: Description of Artificial Sequence: US-09-866-316B-15
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US-09-866-316B-15
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US-09-864-785-3928
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                               CURRENT FILING DATE: 2001-05-23
NUMBER OF SEQ ID NOS: 3929
SOFTWARE: PATENTIN VERSION 3.0
SEQ ID NO 3928
LENGTH: 16
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                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: Ribozyme Pharmaceuticals,
                                                                                                                                                                                                    Sequence 3928, Application US/09864785 Patent No. US20020177568A1
                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
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APPLICANT: Thompson, Jim
APPLICANT: McSwlggen, Jim
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APPLICANT: Draper, Ken
APPLICANT: McSwiggen, Jim
APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: Enzymatic Nucleic Acid
TITLE OF INVENTION: Levels of NF-Kappa B
FILE REFERENCE: 400/022 (MBHB00-812-D)
CURRENT APPLICATION NUMBER: US/09/864,785
                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA ORGANISM: Artificial Sequence
TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
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McSwiggen, Jim
Haeberli, Pete
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Karpeisky, Alex
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Pred. No. 54;
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                                     US-09-730-289B-3896
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                                                                                                                  SEQ ID NO 3896
LENGTH: 16
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SEQ ID NO 21
LENGTH: 16
TYPE: DNA
ORGANISM: Artificial Sequence
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Best Local Similarity
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                                                                                                                                                PRIOR APPLICATION NUMBER: US 60/169,100
PRIOR FILING DATE: 1999-12-06
NUMBER OF SEQ ID NOS: 3897
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                               APPLICANT: Blatt, Larry
APPLICANT: McCswiggen, Jim
APPLICANT: McCswiggen, Jim
TITLE OF INVENTION: Method and Reagent for Treatment of Cardiac Disease
FILE REFERENCE: MBHB00-864-A (400/006)
CURRENT APPLICATION NUMBER: US/09/730,289B
CURRENT FILING DATE: 2000-12-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/992,160
CURRENT FILING DATE: 2001-11-05
NUMBER OF SEQ ID NOS: 58
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TITLE OF INVENTION: Nucleic Acid Sensor Molecules
FILE REFERENCE: MBHB00-816-D (700/004)
                                                                                                                                                                                                                                                                                                              APPLICANT: Ribozyme Pharmaceuticals, Inc
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                                                    OTHER INFORMATION:
                                                                                 ORGANISM: Artificial
                                                                                                      TYPE: DNA
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Chowrira, Bharat
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                                                   of Artificial Sequence:
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APPLICANT: Chowrira, Bharat
APPLICANT: Haeberli, Pete
TITLE OF INVENTION: Method and Reagent for the Inhibition
FILE REFERENCE: MBHB00,878-A (400/011)
CURRENT APPLICATION NUMBER: US/09/780,533A
CURRENT FILING DATE: 2001-02-09
                                                                                                                                                                           PRIOR APPLICATION NUMBER: US 07/882,712
PRIOR FILING DATE: 1992-05-14
PRIOR APPLICATION NUMBER: US 09/531,025
PRIOR FILING DATE: 2000-03-20
PRIOR APPLICATION NUMBER: US 09/636,385
PRIOR FILING DATE: 2000-08-09
                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/877,478
CURRENT FILING DATE: 2001-12-31
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                                                                                                                                                                                                                                                                                                                                     APPLICANT: Morrissey, Dave
TITLE OF INVENTION: Method and Reagent for Inhibiting Hepatitis B Virus Replication
FILE REFERENCE: MBHB00-845-H (400/029)
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                                                                                                                                     PRIOR APPLICATION NUMBER: US 09/696,347 PRIOR FILING DATE: 2000-10-24
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                                                                         APPLICATION NUMBER: US 08/193,627
FILING DATE: 1994-02-07
APPLICATION NUMBER: US 08/433,993
                               APPLICATION NUMBER: US 08/434,504
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                    1995-05-04
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93.8%;
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Pred. No. 5
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RESULT 9
US-09-776-474-2991
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US-09-848-754A-9645
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate TITLE OF INVENTION: Levels of Epidermal Growth Factor Receptors FILE REFERENCE: MeHB00-958-1 (400/018) CURRENT APPLICATION NUMBER: US/09/848,754A CURRENT FILING DATE: 2001-05-03 NUMBER OF SEQ ID NOS: 9645
SOFTWARE: PatentIn version 3.0
SEQ ID NO 9645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 9645, Application US/09848754A
Publication No. US20030073207A1
GENERAL INFORMATION:
APPLICANT: Ribozyme Pharmaceuticals, Inc.
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Best Local (
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 6585
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                                                                                                                                        APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: Method and Reagent for the Inhibition of Checkpoint Kinase-1 (CHR
TITLE OF INVENTION: Enzyme
FILE REFERENCE: MBHB00-955-A (400/008)
CURRENT APPLICATION NUMBER: US/09/776,474
CURRENT FILING DATE: 2001-02-02
CURRENT FILING DATE: 2001-02-02
                                                         SOFTWARE: PatentIn version 3.0 EQ ID NO 2991
                                                                                                            PRIOR APPLICATION NUMBER: US 60/179,983
PRIOR FILING DATE: 2000-03-02
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                                                                                                NUMBER OF SEQ ID NOS: 2992
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 ORGANISM: Artificial Sequence
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Pred. No. 54;
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Pred. No. 54;
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; OTHER INFORMATION: Description of Artificial Sequence: US-09-780-164-2602
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US-09-780-164-2602
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                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/780,164
CURRENT FILING DATE: 2001-02-09
PRIOR APPLICATION NUMBER: 60/185,516
PRIOR FILING DATE: 2000-02-28
NUMBER OF SEQ ID NOS: 2603
SOFTWARE: PatentIn version 3.0
SEQ ID NO 2602
                                                                                                                                                                                                                                                                                Sequence 2602, Application US/09780164
Publication No. US20030092646A1
GENERAL INFORMATION:
APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: Blatt, Larry
APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: Method and Reagent for the Inhibition of CD20
FILE REFERENCE: 400/010
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TITLE OF INVENTION: Method and Reagent for the Treatment of Alzheimer's Disease
FILE REFERENCE: MBHB00,918-A 400/027
CURRENT APPLICATION NUMBER: US/09/930,423
CURRENT FILING DATE: 2001-08-15
NUMBER OF SEQ ID NOS: 4553
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APPLICANT: Blatt, Larry
APPLICANT: McSwiggen, Jim
                                                                                                              TYPE: DNA ORGANISM: Artificial Sequence
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Pred. No. 54;
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                                                                                                                                ; OTHER INFORMATION: Description of Artificial Sequence:
US-10-366-191-14
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Matches 15
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                                                                Matches
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Publication No. US20030113891A1
                                                                                                                                                                                                                                             TITLE OF INVENTION: Antibodies Having Specificity for Nucleic Acids FILE REPERENCE: 02-030-A (900/047) CURRENT APPLICATION NUMBER: US/10/366,191 CURRENT FILING DATE: 2003-02-12 NUMBER OF SEQ ID NOS: 17 SOFTWARE: Patentin version 3.0
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PRIOR FILING DATE: 2001-02-09
PRIOR APPLICATION NUMBER: 60/181,797
PRIOR FILING DATE: 2000-02-11
NUMBER OF SEQ ID NOS: 2617
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TYPE: DAA
ORGANISM: Artificial Sequence
PEATURE:
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TYPE: DNA
ORGANISM: Artificial Sequence
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Haeberli, Peter
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James McSwiggen
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93.8%; Pred. No. 54
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RESULT 14

RESULT 16 US-09-745-237A-4549

Sequence 4549, Application US/09745237A Publication No. US20030143708A1

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; OTHER INFORMATION: catalytic core
US-10-435-044A-19
                                                                                                                                   ; OTHER INFORMATION: catalytic core US-10-435-044A-20
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US-10-435-044A-20
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                                                                                                                                                                                                                             SEQ ID NO 20
LENGTH: 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20, Application US/10435044A Publication No. US20030228615A1 GENERAL INFORMATION:
                                                                  Matches
                                                                                                  Query Match
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Best Local Similarity
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APPLICANT: Riggs, Arthur D
TITLE OP INVENTION: Method For Identifying Accessible Binding Sites on
FILE REFERENCE: 1954-285i
CURRENT APPLICATION NUMBER: US/10/435,044A
CURRENT FILING DATE: 2003-05-12
PRIOR APPLICATION NUMBER: US 09/536,393
PRIOR FILING DATE: 2000-03-28
PRIOR FILING DATE: 2000-03-28
                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE: 1954-28511
CURRENT APPLICATION NUMBER: US/10/435,044A
CURRENT FILING DATE: 2003-05-12
PRIOR APPLICATION NUMBER: US 09/536,393
PRIOR FILING DATE: 2000-03-28
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NUMBER OF SEQ ID NOS: 31
SOFTWARE: PatentIn versi
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APPLICANT: Scherr, Micha
APPLICANT: Riggs, Arthu
                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 31
SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                                 PRIOR FILING DATE: 1999-04-02
                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Scherr, Michaela
APPLICANT: Riggs, Arthur D
TITLE OF INVENTION: Method For Identifying Accessible Binding Sites on RNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Rossi, John
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: US 60/127,529
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                                                                                                                                                                         FEATURE:
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                                                                                                                                                                                                              TYPE: DNA
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                                                                                   Local
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                               1 RGGCTAGCHACAACGA 16
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ilarity 87.5%;
Conservative
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Pred. No. 5
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Pred. No. 5
                                                                  Mismatches
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US-09-792-818-2304
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APPLICANT: McSwiggen, Jim
APPLICANT: McSwiggen, Jim
APPLICANT: McSwiggen, Jim
APPLICANT: INVENTION: Method and Reagent for the Treatment of Alzheimer's Disease
TITLE OF INVENTION: Method and Reagent for the Treatment of Alzheimer's Disease
FILE REFERENCE: 400/007 (MBHB00-918-A)
FILE REFERENCE: 400/007 (MBHB00-918-A)
CURRENT APPLICATION NUMBER: US/09/745,237A
CURRENT FILING DATE: 2002-04-15
CURRENT FILING DATE: 2002-04-15
NUMBER OF SEQ ID NOS: 4550
SOFTWARE: Patentin version 3.0
SEQ ID NO 4549
                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: Description of Artificial Sequence: US-09-792-818-2304
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FILE REFERENCE: MeHB00-901-A (400/013)
CURRENT APPLICATION NUMBER: US/09/792,818
CURRENT FILING DATE: 2001-02-23
NUMBER OF SEQ ID NOS: 2304
SOFTWARE: PatentIn version 3.0
SEQ ID NO 2304
LENGTH: 16
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Best Local S
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                                                                                                                  GENERAL INFORMATION:
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                                                    APPLICANT: Ribozyme Pharmaceuticals Inc.
APPLICANT: Macejak, Dennis
APPLICANT: Lee, Patrice
CURRENT APPLICATION NUMBER: US/10/279,401
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Artificial Sequence
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                      PPLICANT: Lee, Patrice PILOR Models For Screening Inhibitors of Hepatitis B Virus OF INVENTION: In Vivo Models For Screening Inhibitors of Hepatitis B Virus III REFERENCE: 400/066 (MBHB01-1336-B)
                                                                                                                                                                                                                                                                                                                                            Local
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Pred. No. 54;
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CURRENT FILING DATE: 2003-01-27
PRIOR APPLICATION NUMBER: US 60/296,876
PRIOR FILING DATE: 2001-06-08
PRIOR PPLICATION NUMBER: US 60/335,059
PRIOR PILING DATE: 2001-10-24
PRIOR FILING DATE: 2002-03-26
PRIOR APPLICATION NUMBER: PCT/US02/09187
PRIOR APPLICATION NUMBER: DCT/US02/09187
PRIOR FILING DATE: 2002-03-26
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GENERAL INFORMATION:
APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: McSwiggen, James
TITLE OF INVENTION: Nucleic Acid Treatment of
FILE REFERENCE: 400/057 (WBH501-1158-A)
CURRENT FILING DATE: 2002-09-18
CURRENT FILING DATE: 2002-09-18
PRIOR FILING DATE: 2002-05-29
PRIOR FILING DATE: 2002-05-29
PRIOR FILING DATE: 2002-05-29
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US-10-201-389A-13
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US-10-238-700-4666
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Best Local Similarity
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CURRENT FILING DATE: 2002-07-22
NUMBER OF SEQ ID NOS: 23
SOFTWARE: PatentIn version 3.0
SEQ ID NO 13
LENGTH: 16
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Best Local
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APPLICANT: Beigelman, Leonid
APPLICANT: Azhayev, Alex
APPLICANT: Azhayeva, Elena
                                                                                                                                                                          Sequence 4666, Application US/10238700 Publication No. US20030153521A1
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TITLE OF INVENTION: ENZYMATIC NUCLEIC ACID PEPTIDE CONJUGATES
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TYPE: DNA
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Pred. No. 54;
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pred. No. 54;
1; Mismatches
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PRIOR APPLICATION NUMBER:

US 60/318,471

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RESULT 22
US-10-230-006-2677
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US-10-277-494-445
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LENGTH: 16
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Nucleic Acid Treatment of Diseases or conditions Related To Level TITLE OF INVENTION: Epidermal Growth Factor Receptors FILE REFERENCE: MBHB00-958-K (400/064) CURRENT APPLICATION NUMBER: US/10/277,494 CURRENT FILING DATE: 2002-10-21 NUMBER OF SEQ ID NOS: 446 SOFTWARE: Patentin version 3.0
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NUMBER OF SEQ ID NOS: 4666
                                                                                                      PRIOR APPLICATION NUMBER: US 60/315,315
PRIOR PILING DATE: 2001-08-28
NUMBER OF SEQ ID NOS: 2678
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/10/230,006
CURRENT FILING DATE: 2002-11-18
                                                                                                                                                                                                         APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: METHOD AND REAGENT FOR THE TREATMENT OF ASTHMA AND ALLERGIC COND.
FILE REFERENCE: 400/056 (MBHB01-1110)
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                                                                                                                                                                                                                                                                                     APPLICANT: Ribozyme Pharmaceuticals, Inc
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INFORMATION: Description of Artificial Sequence:
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                                                           ; OTHER INFORMATION: Description US-10-151-116-12
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US-10-151-116-12
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US-10-306-747A-11
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 11
LENGTH: 16
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Best Local Similarity 93.
                                                                                                                                                SOFTWARE: Pa
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                                                                                                                                                                                          TITLE OF INVENTION: Conjugates and Compositions for Cellular Delivery FILE REFERENCE: MBHB 01.639-B (600/020)
CURRENT EPLICATION NUMBER: US/10/151,116
CURRENT FILING DATE: 2002-05-17
PRIOR APPLICATION NUMBER: 60/362,016
PRIOR PILING DATE: 2002-03-06
PRIOR FILING DATE: 2002-03-06
PRIOR PILING DATE: 2002-05-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: Method and Reagent for the Modulation of Female Reproductive TITLE OF INVENTION: Conditions FILE REFERENCE: 01-1735-A (400/070) CURRENT APPLICATION NUMBER: US/10/306,747A CURRENT FILING DATE: 2002-11-27
                                                                                                                                                                              NUMBER OF SEQ ID NOS:
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                                                                                                     ORGANISM: Artificial Sequence
                                                                                                                       TYPE: DNA
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               Score 14.8;
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RESULT 25

US-10-163-552-1997

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RESULT 27
US-10-157-580A-170
GENERAL INFORMATION:
               Sequence 170, Application US/10157580A Publication No. US20030124513A1
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; OTHER INFORMATION: Description of Artificial Sequence: US-10-163-552-1997
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CURRENT APPLICATION NUMBER: US/10/163,552
CURRENT FILING DATE: 2002-06-06
NUMBER OF SEQ ID NOS: 1997
SOFTWARE: Patentin version 3.0
SEQ ID NO 1997
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Publication No. US20030105051A1
GENERAL INFORMATION:
APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: MCSwiggen, Jim
APPLICANT: MCSwiggen, Jim
TITLE OF INVENTION: Nucleic acid treatment
TITLE OF INVENTION: HER2
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US-10-156-306-8013
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Publication No. US20030119017A1

GENERAL INFORMATION:
APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: MCSWiggen, James
APPLICANTON: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
TITLE OF INVENTION: Levels of IKK-Gamma and PKR
TITLE OF INVENTION: Levels of IKK-Gamma and PKR
TITLE OF INVENTION: Levels of IKK-Gamma and PKR
TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
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Local Similarity 93.8%;
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TITLE OF INVENTION: CONJUGATES AND COMPOSITIONS FOR FILE REFERENCE: MBHB01-882-B (600/022)

CURRENT APPLICATION NUMBER: US/10/201,394A

CURRENT FILING DATE: 2002-07-22

NUMBER OF SEQ ID NOS: 22

SOFTWARE: Patentin version 3.0

SEQ ID NO 13

LENGTH: 16
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APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases of TITLE OF INVENTION: Related To Levels Of HIV
TITLE OF INVENTION: Related To Levels Of HIV
FILE REFERENCE: McHB01-65-A (400/051)
FILE REFERENCE: McHB01-65-A (400/051)
CURRENT APPLICATION NUMBER: US/10/157,580A
CURRENT FILING DATE: 2002-08-30
NUMBER OF SEQ ID NOS: 170
SOFTWARE: PatentIn version 3.0
SEQ ID NO 170
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US-10-201-394A-13
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US-10-277-494-334
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Ribozyme Pharmaceuticals,
APPLICANT: Vargeese, Chandra
APPLICANT: Adamic, Jasenka
APPLICANT: Karpeisky, Alexander
APPLICANT: Beigelman, Leonid
                                                                                                                                                                                                                            Sequence 334, Applic Publication No. US20 GENERAL INFORMATION:
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TYPE: DNA
ORGANISM: Artificial Sequence
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APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: McSwiggen, Jim
APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: Nucleic Acid Treatment of Diseases or conditions Related To Level
TITLE OF INVENTION: Epidermal Growth Factor Receptors
TITLE OF INVENTION UNDESS-K (400/064)
FILE REFERENCE: MBHB00-958-K (400/064)
CURRENT APPLICATION NUMBER: US/10/277,494
CURRENT FILING DATE: 2002-10-21
NUMBER OF SEQ ID NOS: 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Artificial Sequence FEATURE:
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5. US20030186909A1
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Pred. No. 5
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Pred. No. 5
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US-10-277-494-336
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Query Match
Best Local Similarity
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Best Local
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                                              OTHER INFORMATION:
-10-277-494-336
                                                                                                                                           SEQ ID NO 336
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APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: Nucleic Acid Treatment of Diseases or conditions Related To
TITLE OF INVENTION: Epidermal Growth Factor Receptors
FILE REFERENCE: MBHB00-958-K (400/064)
CURRENT FALLING DATE: 2002-10-21
CURRENT FILING DATE: 2002-10-21
CURRENT FILING DATE: 2002-10-21
MUMBER OF SEQ ID NOS: 446
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APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: Nucleic Acid Treatment of Diseases or conditions Related To Level
TITLE OF INVENTION: Epidermal Growth Factor Receptors
FILE REFERENCE: MBHB00-958-K (400/064)
CURRENT APPLICATION NUMBER: US/10/277,494
CURRENT FILING DATE: 2002-10-21
                                                                                                                                                       NUMBER OF SEQ ID NOS: 446
SOFTWARE: PatentIn version
                                                                      LENGTH: 23
TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Artificial Sequence
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o. US20030186909A1
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                                                           Description
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Pred. No. 55;
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Pred. No. 5
Score 14.8; DB Pred. No. 55;
                                                           of Artificial Sequence:
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              Length 23;
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; OTHER INFORMATION: Description of Artificial Sequence: US-10-277-494-337
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US-10-277-494-337
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SEQ ID NO 338
                                    Best Loc
Matches
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CURRENT FILING DATE: 2002-10-21
NUMBER OF SEQ ID NOS: 446
SOFTWARE: Patentin version 3.0
SEQ ID NO 337
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                                                                    Query Match
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 337, Application US/10277494
                                                                                                                                                                                                                         TITLE OF INVENTION: Nucleic Acid Treatment of Diseases TITLE OF INVENTION: Epidermal Growth Factor Receptors FILE REFERENCE: MBHB00-958-K (400/064) CURRENT APPLICATION NUMBER: US/10/277,494 CURRENT FILING DATE: 2002-10-21 NUMBER OF SEQ ID NOS: 446 SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Ribozyme Pharmaceuticals, APPLICANT: McSwiggen, Jim
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APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: Nucleic Acid Treatment of Diseases or conditions Related To Level.
TITLE OF INVENTION: Epidermal Growth Factor Receptors
TITLE OF INVENTION: Epidermal Growth Factor Receptors
FILE REFERENCE: MBHB00-958-K (400/064)
                                                                                                                     OTHER INFORMATION: Description of Artificial
                                                                                                                                         ORGANISM: Artificial Sequence FEATURE:
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                                                    Local
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                                    Similarity
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RGGCTAGCHACAACGA 16
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                                  92.5%;
nilarity 87.5%;
Conservative
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Pred. No. 55;
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Pred. No. 55;
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US-10-277-494-339; Sequence 339; A; Publication No.

Application US/10277494 o. US20030186909A1

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US-10-277-494-340
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                           OTHER INFORMATION: Description of Artificial Sequence: Enzymatic Nucleic Acid Molecus-10-277-494-340
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Best Local Similarity
Matches 14; Conserv
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FILE REFERENCE: MBHB00-958-K (400/064)
CURRENT APPLICATION NUMBER: US/10/277,494
CURRENT FILING DATE: 2002-10-21
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APPLICANT: McSwiggen, Jim
TITLB OF INVENTION: Nucleic Acid Treatment of
TITLB OF INVENTION: Epidermal Growth Factor R
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Publication No. US20
GENERAL INFORMATION:
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LENGTH: 23
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CURRENT FILING DATE: 2002-10-21
NUMBER OF SEQ ID NOS: 446
SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Nucleic Acid Treatment of Diseases or conditions Related TITLE OF INVENTION: Epidermal Growth Factor Receptors FILE REFERENCE: MBHB00-958-K (400/064)
                                                                                                                                                                                               Sequence 341, A Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Ribozyme Pharmaceuticals, Inc. APPLICANT: McSwiggen, Jim
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ORGANISM: Artificial Sequence
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SEQ ID NO 341
           APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: McSwiggen, Jim
APPLICANT: McSwiggen, Jim
APPLICANT: McSwiggen, Jim
APPLICANT: McSwiggen, Jim
APPLICANTON: Epidermal Growth Factor Receptors
TITLE OF INVENTION: Epidermal Growth Factor Receptors
TITLE REFERENCE: MBHB00-958-K (400/064)
FILE REFERENCE: MBHB00-958-K (400/064)
FILE REFERENCE: MCHBER: US/10/277,494
CURRENT APPLICATION NUMBER: US/10/277,494
CURRENT FILING DATE: 2002-10-21
NUMBER OF SEQ ID NOS: 446
SOFTWARE: PatentIn version 3.0
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ORGANISM: Artificial Sequence
FEATURE:
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5. US20030186909A1
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Sequence 342, Application US/10277494

publication No. US20030186909A1

publication No. US20030186909A1

APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: NGSWidgen, Jim
APPLICANT: NGSWidgen, Jim
APPLICANT: NGSWidgen, Jim
APPLICANT: NUCleic Acid Treatment of Diseases or TITLE OF INVENTION: Epidermal Growth Factor Receptors
FILE REFERENCE: MHHB00-958-K (400/064)

FILE REFERENCE: MHHB00-958-K (400/064)

CURRENT APPLICATION NUMBER: US/10/277,494

CURRENT FILING DATE: 2002-10-21

NUMBER OF SEG ID NOS: 446

SOFTWARE: PatentIn version 3.0

SEQ ID NO 342
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US-10-277-494-343
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APPLICANT: McSwiggen, Jim
APPLICANT: McSwiggen, Jim
APPLICANT: McSwiggen, Jim
APPLICANT: Nucleic Acid Treatment of Diseases or conditions Related
TITLE OF INVENTION: Epidermal Growth Factor Receptors
FILE REFERENCE: McHB00-958-K (400/064)
FILE REFERENCE: McHB00-958-K (400/064)
CURRENT APPLICATION NUMBER: US/10/277,494
CURRENT FILING DATE: 2002-10-21
NUMBER OF SEQ ID NOS: 446
SOFTWARE: PatentIn version 3.0
SEQ ID NO 343
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NUMBER OF SEQ ID NOS: 446
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SEQ ID NO 344
LENGTH: 23
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
FEATURE:
Search completed: January 21, 2004, 08:22:21 Job time : 155 secs
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US-10-277-494-345
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US-10-277-494-344
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APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: McSwiggen, Jim
APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: Epidermal Growth Factor Receptors
TITLE OF INVENTION: Epidermal Growth Factor Receptors
FILE REFERENCE: MBHB00-958 K (400/064)
CURRENT APPLICATION NUMBER: US/10/277,494
CURRENT APPLICATION UMBER: US/10/277,494
CURRENT FILING DATE: 2002-10-21
NUMBER OF SEQ ID NOS: 446
SOFTWARE: PatentIn version 3.0
SEQ ID NO 345
LENGTH: 23
TYPE: DNA
ORGANISM: Artificial Sequence
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Publication No. US20030186909A1
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Publication No. US20030186909A1
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APPLICANT: McSwiggen, Jim

ITITLE OF INVENTION: Nucleic Acid Treatment of Diseases or conditions Related To Level

TITLE OF INVENTION: Epidermal Growth Factor Receptors

FILE REFERENCE: MBHB00-958-K (400/064)

CURRENT APPLICATION NUMBER: US/10/277,494

CURRENT FILING DATE: 2002-10-21
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                                   | AL488934 T. bruc<br>BI261027 6029722                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | CB274957 ku73e02<br>BH790547 SALK_05                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | AI203858 qf76g06.<br>AI287257 qv22e08.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CB053396 NISC_gl<br>AZ774755 2M0004E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | AU106750 AU106750<br>AU107714 AU107714                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | AU106745 AU106745<br>AU106748 AU106748                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | BU899105 mai45g0<br>AU106744 AU106744                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | AL495350 T. bruc<br>BH907194 SALK 03                                                                                                                                       | 8H635864 100800/<br>CC037245 3591_1_                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | HZ836Z
Y15Zd04.s<br>AZ834022 ZM0116D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | AL764168 Arabido<br>BX191644 Danio r                        | AZ789583 2M0037F<br>AZ324242 1M0046B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | BH630486 1007088<br>AI789785 ui53c12.                                     | AL953755 Arabido                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | AA199679 zq74g06.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | AA985715 ue13d01.                          | AZ836165 2M0130E                          | AZ386571 1M0145C | AI625681 ty59c06.<br>AI677827 wc80h06.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
         | BH218154 1006077                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | BU820967 UB17CPB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | AA207795 mv81c01.<br>BF953180 CM3-NN1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Al812919 Triticum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | AA676894 zj65e11.                                    | CD260607 psMA009<br>AL262028 Tetracd | AQ025077 EP(3)04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | CA592488 bsh1.pk<br>AI122377 uc61d05.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 100 100 00 0 100 00 00 100 00 100 00 100 00                                          | 577 9.4 58.8 91 14 CD029357 CD029357 mgcw016xM 650 9.2 57.5 58 9 578 9.4 58.8 91 28 BH851397 BH851397 SALK 0729 C 651 9.2 57.5 58 9 579 9.4 58.8 92 28 BH851397 BH851397 SALK 0729 C 651 9.2 57.5 58 9 579 9.4 58.8 92 28 BH751397 BH851397 SALK 0729 C 651 9.2 57.5 58 12 570 9.4 58.8 91 9 AT075996 AT075996 W039073 M 653 9.2 57.5 58 29 | 574     9.4     58.8     89     29     CC033596     CC033596 3591 1 64     647     9.2     57.5     55     28       575     9.4     58.8     90     14     CB394112     CB394112 OSTRAIJ3H4     649     9.2     57.5     56     28       577     9.4     58.8     91     14     CD029357     CD029357 mgcw016xM     650     9.2     57.5     58     9       578     9.4     58.8     91     28     BH851397     BH851397 SALK 0729     C51     9.2     57.5     58     9       579     9.4     58.8     91     28     BH851397     BH851397 SALK 0729     C51     9.2     57.5     58     9       579     9.4     58.8     91     28     BH851397     BH851397 SALK 0729     C51     9.2     57.5     58     9       579     9.4     58.8     92     28     BH851397     SALK 0729     C51     9.2     57.5     58     9       580     9.4     58.8     92     28     75.5     58     9     75.5     58     9       580     9.4     58.8     92     28     75.5     58     9     75.5     58     9 <t< td=""><td>571 9.4 58.8 89 9 AL781871 AL791871 C 644 9.2 57.5 55 12 57.2 9.4 58.8 89 9 AA283436 RTH191 HT C 644 9.2 57.5 55 12 57.3 9.4 58.8 89 13 BU552018 BU552018 mai24904. C 646 9.2 57.5 55 12 57.4 58.8 89 12 CC033596 CC033596 3591 1 64 647 9.2 57.5 55 12 57.5 9.4 58.8 90 11 CNS09692 BX044178 Single re C 648 9.2 57.5 56 12 57.5 9.4 58.8 91 14 CD029357 CD029357 mgcw016xM 649 9.2 57.5 56 28 57.9 9.4 58.8 91 14 CD029357 CD029357 mgcw016xM 650 9.2 57.5 58 9 57.9 9.4 58.8 91 28 BH651397 SALK 0729 651 9.2 57.5 58 9 57.5 9.4 58.8 92 28 BH651397 BH651397 SALK 0729 C 651 9.2 57.5 58 9 9.4 58.8 92 28 BH651397 BH651397 SALK 0729 C 651 9.2 57.5 58 9 9.4 58.8 92 28 BH651397 AL778554 ZM00T3M10 C 651 9.2 57.5 58 12 57.5 58 12 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 5</td><td>569 9.4 58.8 88 29 AZ217414 AZ2567 AZ27614 Drosophil C 643 9.2 57.5 54 12 571 9.4 58.8 89 9 AL781871 AL781871 AL781871 C 644 9.2 57.5 55 9.4 58.8 89 9 AL78268 BU552018 mail4904. C 646 9.2 57.5 55 13 572 9.4 58.8 89 13 BU552018 BU552018 mail4904. C 646 9.2 57.5 55 13 574 9.4 58.8 89 29 CC033596 CC033596 359.1 64 58.8 90 11 CMS09692 BX044178 Single-re 576 9.4 58.8 91 14 CD394172 CB394112 OSTR13114 C 648 9.2 57.5 56 28 577 9.4 58.8 91 14 CD39457 CD39357 mgcw016xM 578 9.4 58.8 91 14 CD39357 CD39357 mgcw016xM 58.8 91 28 BH851397 BH851397 SALK 0729 9.4 58.8 92 AZ778554 AZ778554 AZM0013M10 C 651 9.2 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 29 12 57.5 58 12 57.5 58 29 12 57.5 58 29 12 57.5 58 12 57.5 58 29 12 57.5 58 12 57.5 58 12 57.5 58 29 12 57.5 58 12 57.5 58 29 12 57.5 58 29 12 57.5 58 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 5</td><td>567         9.4         58.8         87         14         CB353686         CB353686         ZP001-P00         C 640         9.2         57.5         53         28           568         9.4         58.8         88         9         AW064494         AW064494 SP1094 KR         C 641         9.2         57.5         53         28           569         9.4         58.8         88         14         R22567         R22567         R22567 Ph24a08.sl         642         9.2         57.5         53         29           570         9.4         58.8         89         AR217414         Drosophil         C 643         9.2         57.5         54         12           571         9.4         58.8         89         ARA283436         ARTH191 HT         C 643         9.2         57.5         55         9.5         59         55         9.2         57.5         55         12           571         9.4         58.8         89         13         BUS52018         BUS52018         BUS52018         CC033596         3591 L64         647         9.2         57.5         55         12           572         9.4         58.8         91         1         CN394</td><td>565 9.4 58.8 86 29 DME546638   566 9.4 58.8 86 29 DME546642   567 9.4 58.8 86 12 DME546642   568 9.4 58.8 87 14 CB353686   569 9.4 58.8 88 9 AW064494   560 9.4 58.8 88 9 AW064494   560 9.4 58.8 88 9 AW064494   560 9.4 58.8 88 19 AW064494   560 9.4 58.8 88 29 AZ217414   561 9.4 58.8 88 29 AZ217414   562 9.4 58.8 89 9 AL781871   570 9.4 58.8 89 9 AL781871   571 9.4 58.8 89 9 AL781871   572 9.4 58.8 89 9 AL781871   573 9.4 58.8 89 9 AL781871   574 9.4 58.8 89 13 BU552018   575 9.4 58.8 89 29 CC033596   576 9.4 58.8 90 11 CN809692   577 9.4 58.8 91 14 CD29357   578 9.4 58.8 91 14 CD29357   579 9.4 58.8 91 14 CD29357   570 9.4 58.8 91 14 CD394112   570 9.4 58.8 91 14 CD39415   570 9.4 58.8 91 14 CD39459   570 9.4 58.8 91 14 CD39357   570 9.4 58.8 91 18 CB394112   570 9.4 58.8 91 14 CD39357   570 9.4 58.8 91 14 CD39359   570 9.4 58.8 91 14 CD39359</td><td>563 9.4 58.8 85 12 BJ036891 BJ036891 BJ036891 BJ036891 636 9.2 57.5 51 28 564 9.4 58.8 86 29 DME546383 AJ546383 Drosophil 638 9.2 57.5 52 9 566 9.4 58.8 86 29 DME54642 CD353686 ZP001-P00 C 640 9.2 57.5 52 9 56 9.4 58.8 89 14 R22567 AR25674 AJ546383 Drosophil 639 9.2 57.5 52 9 56 9.4 58.8 89 14 R22567 AR25674 AW064494 SP1094 KR 58.8 88 14 R22567 AR25674 AW064494 SP1094 KR 58.8 88 14 R22567 AR25674 AW064494 SP1094 KR 58.8 89 AJ781871 C 641 9.2 57.5 53 28 57.5 9.4 58.8 89 AJ781871 AJ781871 C 642 9.2 57.5 53 29 57.5 9.4 58.8 89 AJ781871 AJ781871 C 644 9.2 57.5 54 12 57.5 9.4 58.8 89 AJ781871 AJ781871 C 645 9.2 57.5 55 12 57.5 9.4 58.8 89 AJ781871 AJ781871 C 645 9.2 57.5 55 12 57.5 9.4 58.8 89 11 CNS09692 C 651 9.2 57.5 55 12 57.5 9.4 58.8 89 11 CNS09692 C 644 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 645 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 645 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 645 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 645 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 645 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 645 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 648 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 648 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 648 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 648 9.2 57.5 55 12 57.5 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 1</td><td>561         9.4         58.8         85         9         AA919104         AA919104 ol84h05.s         C 634         9.2         57.5         50         9           562         9.4         58.8         85         12         BUJ036891         BU36849         C 635         9.2         57.5         50         9           563         9.4         58.8         86         9         AA236075         AA236075         S205a05.r         636         9.2         57.5         51         14           565         9.4         58.8         86         29         DWE546642         AA236075         Z805a05.r         637         9.2         57.5         51         28           566         9.4         58.8         86         29         DWE546642         AA346642         Drosophil         637         9.2         57.5         52         9           567         9.4         58.8         87         14         CB333686         CB39.92         57.5         52         9           568         9.4         58.8         88         9         AW64494         PA1094 KR         C641         9.2         57.5         53         29           571         9</td><td>559         9.4         58.8         82         9         AW718858         AW718858         AW718858         10         BPF463412         BP463412         BP463412         BP463412         C632         9.2         57.5         50         9           561         9.4         58.8         85         9         AA919104         AA919104         O184h05.8         C633         9.2         57.5         50         9           562         9.4         58.8         85         9         AL896449         AL896449         AL896449         C635         9.2         57.5         50         9           562         9.4         58.8         86         12         BUJ36891         AL36075         AL36075         AD36801         C635         9.2         57.5         51         24           565         9.4         58.8         86         29         DME546383         AL764383         Drosophil         637         9.2         57.5         52         9           566         9.4         58.8         86         29         DME54642         Drosophil         637         9.2         57.5         52         9           567         9.4         58.8         81</td><td>557 9.4 58.8 81 9 AV736563 AV736563 AV736563 AV736563 C 630 9.2 57.5 49 13 58.8 81 28 AZ586406 AZ586406 AV718958 C 631 9.2 57.5 50 9 559 9.4 58.8 81 29 AW718858 i7e03nm.f</td><td>555         9.4         58.8         80         13         BU861991         BU861991         BU861991         BU861991         C628         9.2         57.5         47         29           557         9.4         58.8         81         9         AV736563         AV736563         AV736563         C 630         9.2         57.5         48         28           558         9.4         58.8         81         28         AX2586406         AV38663         C 630         9.2         57.5         49         13           559         9.4         58.8         81         12         BA2586406         AV318858         3         C 631         9.2         57.5         50         9           560         9.4         58.8         81         12         BA259649         AV318104         AV318104         AV318405         C 633         9.2         57.5         50         9           561         9.4         58.8         86         12         DME246333         AV326075         AV326075         C 634         9.2         57.5         50         9           562         9.4         58.8         86         29         DME246333         AV326632         DM20681&lt;</td><td>553         9.4         58.8         80         9. A&amp;B35179         AAB35179 OGZ19G5.8         C 626         9.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         48         28         59.2         57.5         48         28         59.2         57.5         49         13         55.6         9.4         58.8         81         2.0.735630         2.2         57.5         50         9         4.9.4         28         2.2         57.5         50         9         4.9.4         2.8.8         81         2.0.735640         A.0.236075         A.2.256744         A.0.236075         A.2.256075         50         9         4.2.2567         50         9         4.2.2567         50         9         57.5         50         9         57.5         50         9         2.2.57.5</td><td>551 561 572 583 584 588 587 588 588 588 588 588 588 588 588</td><td>549         9.4         58.8         76         10         BEDOSS99         BHZ05294         SHLK,0015         C622         9.2         57.5         44         29           551         9.4         58.8         77         28         BHZ761975         BHZ761975         SALK_0013         623         9.2         57.5         44         29           552         9.4         58.8         77         28         BHZ761975         ALBSA179         ALBSA179         ALBSA179         ALBSA179         ALBSA179         ALBSA179         ALBSA179         C622         9.2         57.5         46         24         29         57.5         46         28         9.1         SMR46531         ALBSA179         ALBSA179         C622         9.2         57.5         46         28         9.2         57.5         46         28         9.2         57.5         46         28         9.2         57.5         46         28         9.2         57.5         46         28         9.2         57.5         46         28         9.2         57.5         47         29         57.5         49         28         ALBSA6406         ALBSA6406         ALBSA6406         ALBSA6442         ALBSA6442         ALBSA6449</td><td>\$44</td><td>\$44 9.4 58.8 70 14 CD887529 CD887752 SGM CCKTACK B \$46 9.4 58.8 75 12 BH79923 CD887529 SGM CCKTACK B \$47 9.4 58.8 75 12 BH79923 CD88753 LB108266.X \$48 9.4 58.8 75 12 BH79923 CD88753 LB108266.X \$49 9.4 58.8 76 10 BE058539 BE058589 SM18b0.3.Y \$49 9.4 58.8 76 10 BE058549 BE058589 SM18b0.3.Y \$40 9.4 58.8 76 10 BE058549 BE058589 SM18b0.3.Y \$40 9.4 58.8 77 29 BE7761975 ABLK R016 \$41 9.4 58.8 87 72 BH7761975 ABLK R016 \$42 9.4 58.8 87 72 BH7761975 ABLK R016 \$43 9.4 58.8 87 72 BH7761975 ABLK R016 \$44 9.4 58.8 87 9 AM645530 AM645530 CM857h09.W \$45 9.4 58.8 87 9 AM645530 AM645530 CM857h09.W \$45 9.4 58.8 87 9 AM645530 AM736561 AM736561 CR \$47 9.4 58.8 81 9 AM7365646 AM736561 AM736561 CR \$47 9.4 58.8 81 9 AM7365646 AM736561 AM736561 CR \$47 9.4 58.8 81 9 AM7365646 AM736561 AM736561 CR \$47 9.4 58.8 81 9 AM736564 AM736561 CR \$47 9.4 58.8 81 9 AM736564 AM736561 CR \$48 81 9 AM736564 AM736561 CR \$48 81 9 AM736564 AM736561 CR \$48 81 9 AM736564 AM736561 CR \$49 9.4 58.8 81 81 9 AM736561 AM736561 CR \$49 9.4 58.8 81 81 9 AM736561 AM736561 CR \$49 9.4 58.8 81 81 9 AM736561 CR \$49 9.4 58.8 81 81 9 AM736561 CR \$40 9.4 58.8 81 81 9 AM73661 CR \$40</td><td>\$44. 9.4 58.8 70 9 AASTSTATE ALGEBRA 1.2 1 MANUAL STATE ALGEBRA 1.2 1 MANUA</td><td>\$41.000.000.000.000.000.000.000.000.000.0</td><td>\$40.000.000.000.000.000.000.000.000.000.</td><td>\$33.5</td><td>\$35. 94. 95. 65. 29 MASSITZG  94. 95. 96. 20 MASSITZG  94. 95. 96. 66 28 MASSITZG  95. 95. 96. 96. 96 MASSITZG  95. 95. 96. 96. 97 MASSITZG  95. 95. 96. 96. 90 MASSITZG  95. 96. 96. 96 MASSITZG  95. 96 MASSITZG  95. 96 MASSITZG  96. 96 MASSITZG  96. 96 MASSITZG  96. 96 MASSITZG  97. 96 MASSITZG  97. 96 MASSITZG  98. 96 MASSITZG  99. 97. 96 MASSITZG  99. 97.</td><td>33         9.4         9.8         8.6         9         MV671702         AV671702         606         9.2         87.5         28           53.5         9.4         55.8         86.5         29         AV691776         AV691776         C60.9         9.2         57.5         28           53.5         9.4         55.8         66.2         28 AM591726         AV691726         C60.9         9.2         57.5         31           53.7         9.4         55.8         66.2         AV691726         AV691727         C60.9         9.2         57.5         31           54.0         9.4         55.8         66.2         AV691727         AV691727         C61.0         9.2         57.5         37         9           54.0         9.4         55.8         61.2         C81.2         AV74627         AV691727         AV691727         AV691727         40.9         9.2         57.5         40         9.4         58.8         70         12         C81.2         AV74627         AV691727         AV69172</td><td>531 9.4 58.8 64 11 CHRODWER CHROSOSS SINGLE PER CHROSOSS SINGLE PE</td><td>\$22.20 9.4 9.8 62 9.3 9.4 MATCHESTS   MATC</td><td>\$222 9.4 58.8 66 14 WRSSON ANNEXON RESIDENT CORRESPONDANCE OF THE STATE OF THE STAT</td><td>\$22. 9.4 58.8 60 1.1 \$1999083 \$1999083 \$1999093 mat.5ec02. 50.9 9.4 58.8 100 10 \$1999083 \$1999083 mat.5ec02. 50.9 9.4 58.8 100 11 \$1999083 mat.5ec02. 50.9 9.4 58.8 10.0 11 \$1999083 mat.5ec02. 50.0 9.2 57.5 58.9 9.0 9.4 58.0 10.0 11 \$1999083 mat.5ec02. 50.0 9.2 57.5 58.9 9.0 9.0 \$1099083 mat.5ec02. 50.0 9.2 57.5 58.9 9.0 9.0 \$1099083 mat.5ec02. 50.0 9.0 9.0 \$10.0 \$10.0 \$10.0 \$10.0 \$10.0 \$10.0 \$10.0 \$10.0 \$10.0 \$10.0</td><td>\$25.0 \$1.0 \$1.0 \$1.0 \$1.0 \$1.0 \$1.0 \$1.0 \$1</td><td>\$222 9.4 \$8.8 \$7.2 \$1.000225522</td><td>\$221 9.4 \$28 40.5 \$2 20 20204472 SALK_1000 \$222 9.4 \$28 0.4 \$2 20 20204472 SALK_1000 \$223 9.4 \$28 0.4 \$2 20 20204472 SALK_1000 \$224 9.4 \$28 0.4 \$2 20 20204472 SALK_1000 \$225 9.4 \$2 20204472</td><td>  Section   Sect</td></t<> | 571 9.4 58.8 89 9 AL781871 AL791871 C 644 9.2 57.5 55 12 57.2 9.4 58.8 89 9 AA283436 RTH191 HT C 644 9.2 57.5 55 12 57.3 9.4 58.8 89 13 BU552018 BU552018 mai24904. C 646 9.2 57.5 55 12 57.4 58.8 89 12 CC033596 CC033596 3591 1 64 647 9.2 57.5 55 12 57.5 9.4 58.8 90 11 CNS09692 BX044178 Single re C 648 9.2 57.5 56 12 57.5 9.4 58.8 91 14 CD029357 CD029357 mgcw016xM 649 9.2 57.5 56 28 57.9 9.4 58.8 91 14 CD029357 CD029357 mgcw016xM 650 9.2 57.5 58 9 57.9 9.4 58.8 91 28 BH651397 SALK 0729 651 9.2 57.5 58 9 57.5 9.4 58.8 92 28 BH651397 BH651397 SALK 0729 C 651 9.2 57.5 58 9 9.4 58.8 92 28 BH651397 BH651397 SALK 0729 C 651 9.2 57.5 58 9 9.4 58.8 92 28 BH651397 AL778554 ZM00T3M10 C 651 9.2 57.5 58 12 57.5 58 12 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 58 29 58 5 | 569 9.4 58.8 88 29 AZ217414 AZ2567 AZ27614 Drosophil C 643 9.2 57.5 54 12 571 9.4 58.8 89 9 AL781871 AL781871 AL781871 C 644 9.2 57.5 55 9.4 58.8 89 9 AL78268 BU552018 mail4904. 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C 646 9.2 57.5 55 13 574 9.4 58.8 89 29 CC033596 CC033596 359.1 64 58.8 90 11 CMS09692 BX044178 Single-re 576 9.4 58.8 91 14 CD394172 CB394112 OSTR13114 C 648 9.2 57.5 56 28 577 9.4 58.8 91 14 CD39457 CD39357 mgcw016xM 578 9.4 58.8 91 14 CD39357 CD39357 mgcw016xM 58.8 91 28 BH851397 BH851397 SALK 0729 9.4 58.8 92 AZ778554 AZ778554 AZM0013M10 C 651 9.2 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 29 12 57.5 58 12 57.5 58 29 12 57.5 58 29 12 57.5 58 12 57.5 58 29 12 57.5 58 12 57.5 58 12 57.5 58 29 12 57.5 58 12 57.5 58 29 12 57.5 58 29 12 57.5 58 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 58 29 12 57.5 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58.8         88         9         AW064494         AW064494 SP1094 KR         C 641         9.2         57.5         53         28           569         9.4         58.8         88         14         R22567         R22567         R22567 Ph24a08.sl         642         9.2         57.5         53         29           570         9.4         58.8         89         AR217414         Drosophil         C 643         9.2         57.5         54         12           571         9.4         58.8         89         ARA283436         ARTH191 HT         C 643         9.2         57.5         55         9.5         59         55         9.2         57.5         55         12           571         9.4         58.8         89         13         BUS52018         BUS52018         BUS52018         CC033596         3591 L64         647         9.2         57.5         55         12           572         9.4         58.8         91         1         CN394 | 565 9.4 58.8 86 29 DME546638   566 9.4 58.8 86 29 DME546642   567 9.4 58.8 86 12 DME546642   568 9.4 58.8 87 14 CB353686   569 9.4 58.8 88 9 AW064494   560 9.4 58.8 88 9 AW064494   560 9.4 58.8 88 9 AW064494   560 9.4 58.8 88 19 AW064494   560 9.4 58.8 88 29 AZ217414   561 9.4 58.8 88 29 AZ217414   562 9.4 58.8 89 9 AL781871   570 9.4 58.8 89 9 AL781871   571 9.4 58.8 89 9 AL781871   572 9.4 58.8 89 9 AL781871   573 9.4 58.8 89 9 AL781871   574 9.4 58.8 89 13 BU552018   575 9.4 58.8 89 29 CC033596   576 9.4 58.8 90 11 CN809692   577 9.4 58.8 91 14 CD29357   578 9.4 58.8 91 14 CD29357   579 9.4 58.8 91 14 CD29357   570 9.4 58.8 91 14 CD394112   570 9.4 58.8 91 14 CD39415   570 9.4 58.8 91 14 CD39459   570 9.4 58.8 91 14 CD39357   570 9.4 58.8 91 18 CB394112   570 9.4 58.8 91 14 CD39357   570 9.4 58.8 91 14 CD39359   570 9.4 58.8 91 14 CD39359 | 563 9.4 58.8 85 12 BJ036891 BJ036891 BJ036891 BJ036891 636 9.2 57.5 51 28 564 9.4 58.8 86 29 DME546383 AJ546383 Drosophil 638 9.2 57.5 52 9 566 9.4 58.8 86 29 DME54642 CD353686 ZP001-P00 C 640 9.2 57.5 52 9 56 9.4 58.8 89 14 R22567 AR25674 AJ546383 Drosophil 639 9.2 57.5 52 9 56 9.4 58.8 89 14 R22567 AR25674 AW064494 SP1094 KR 58.8 88 14 R22567 AR25674 AW064494 SP1094 KR 58.8 88 14 R22567 AR25674 AW064494 SP1094 KR 58.8 89 AJ781871 C 641 9.2 57.5 53 28 57.5 9.4 58.8 89 AJ781871 AJ781871 C 642 9.2 57.5 53 29 57.5 9.4 58.8 89 AJ781871 AJ781871 C 644 9.2 57.5 54 12 57.5 9.4 58.8 89 AJ781871 AJ781871 C 645 9.2 57.5 55 12 57.5 9.4 58.8 89 AJ781871 AJ781871 C 645 9.2 57.5 55 12 57.5 9.4 58.8 89 11 CNS09692 C 651 9.2 57.5 55 12 57.5 9.4 58.8 89 11 CNS09692 C 644 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 645 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 645 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 645 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 645 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 645 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 645 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 648 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 648 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 648 9.2 57.5 55 12 57.5 9.4 58.8 99 AJ781871 C 648 9.2 57.5 55 12 57.5 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 12 57.5 58 1 | 561         9.4         58.8         85         9         AA919104         AA919104 ol84h05.s         C 634         9.2         57.5         50         9           562         9.4         58.8         85         12         BUJ036891         BU36849         C 635         9.2         57.5         50         9           563         9.4         58.8         86         9         AA236075         AA236075         S205a05.r         636         9.2         57.5         51         14           565         9.4         58.8         86         29         DWE546642         AA236075         Z805a05.r         637         9.2         57.5         51         28           566         9.4         58.8         86         29         DWE546642         AA346642         Drosophil         637         9.2         57.5         52         9           567         9.4         58.8         87         14         CB333686         CB39.92         57.5         52         9           568         9.4         58.8         88         9         AW64494         PA1094 KR         C641         9.2         57.5         53         29           571         9 | 559         9.4         58.8         82         9         AW718858         AW718858         AW718858         10         BPF463412         BP463412         BP463412         BP463412         C632         9.2         57.5         50         9           561         9.4         58.8         85         9         AA919104         AA919104         O184h05.8         C633         9.2         57.5         50         9           562         9.4         58.8         85         9         AL896449         AL896449         AL896449         C635         9.2         57.5         50         9           562         9.4         58.8         86         12         BUJ36891         AL36075         AL36075         AD36801         C635         9.2         57.5         51         24           565         9.4         58.8         86         29         DME546383         AL764383         Drosophil         637         9.2         57.5         52         9           566         9.4         58.8         86         29         DME54642         Drosophil         637         9.2         57.5         52         9           567         9.4         58.8         81 | 557 9.4 58.8 81 9 AV736563 AV736563 AV736563 AV736563 C 630 9.2 57.5 49 13 58.8 81 28 AZ586406 AZ586406 AV718958 C 631 9.2 57.5 50 9 559 9.4 58.8 81 29 AW718858 i7e03nm.f | 555         9.4         58.8         80         13         BU861991         BU861991         BU861991         BU861991         C628         9.2         57.5         47         29           557         9.4         58.8         81         9         AV736563         AV736563         AV736563         C 630         9.2         57.5         48         28           558         9.4         58.8         81         28         AX2586406         AV38663         C 630         9.2         57.5         49         13           559         9.4         58.8         81         12         BA2586406         AV318858         3         C 631         9.2         57.5         50         9           560         9.4         58.8         81         12         BA259649         AV318104         AV318104         AV318405         C 633         9.2         57.5         50         9           561         9.4         58.8         86         12         DME246333         AV326075         AV326075         C 634         9.2         57.5         50         9           562         9.4         58.8         86         29         DME246333         AV326632         DM20681< | 553         9.4         58.8         80         9. A&B35179         AAB35179 OGZ19G5.8         C 626         9.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         46         29.2         57.5         48         28         59.2         57.5         48         28         59.2         57.5         49         13         55.6         9.4         58.8         81         2.0.735630         2.2         57.5         50         9         4.9.4         28         2.2         57.5         50         9         4.9.4         2.8.8         81         2.0.735640         A.0.236075         A.2.256744         A.0.236075         A.2.256075         50         9         4.2.2567         50         9         4.2.2567         50         9         57.5         50         9         57.5         50         9         2.2.57.5 | 551 561 572 583 584 588 587 588 588 588 588 588 588 588 588 | 549         9.4         58.8         76         10         BEDOSS99         BHZ05294         SHLK,0015         C622         9.2         57.5         44         29           551         9.4         58.8         77         28         BHZ761975         BHZ761975         SALK_0013         623         9.2         57.5         44         29           552         9.4         58.8         77         28         BHZ761975         ALBSA179         ALBSA179         ALBSA179         ALBSA179         ALBSA179         ALBSA179         ALBSA179         C622         9.2         57.5         46         24         29         57.5         46         28         9.1         SMR46531         ALBSA179         ALBSA179         C622         9.2         57.5         46         28         9.2         57.5         46         28         9.2         57.5         46         28         9.2         57.5         46         28         9.2         57.5         46         28         9.2         57.5         46         28         9.2         57.5         47         29         57.5         49         28         ALBSA6406         ALBSA6406         ALBSA6406         ALBSA6442         ALBSA6442         ALBSA6449 | \$44                                                                      | \$44 9.4 58.8 70 14 CD887529 CD887752 SGM CCKTACK B \$46 9.4 58.8 75 12 BH79923 CD887529 SGM CCKTACK B \$47 9.4 58.8 75 12 BH79923 CD88753 LB108266.X \$48 9.4 58.8 75 12 BH79923 CD88753 LB108266.X \$49 9.4 58.8 76 10 BE058539 BE058589 SM18b0.3.Y \$49 9.4 58.8 76 10 BE058549 BE058589 SM18b0.3.Y \$40 9.4 58.8 76 10 BE058549 BE058589 SM18b0.3.Y \$40 9.4 58.8 77 29 BE7761975 ABLK R016 \$41 9.4 58.8 87 72 BH7761975 ABLK R016 \$42 9.4 58.8 87 72 BH7761975 ABLK R016 \$43 9.4 58.8 87 72 BH7761975 ABLK R016 \$44 9.4 58.8 87 9 AM645530 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AF219062
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                                                                                                                                                                                                                                                                                                                                AII49923 qf33d6.x
AZ775430 ZM0007B20
AGZ19377 Lotus jap
AI748404 sb52d6.y
AU009048 AU009048
AU009049 AU009049
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AA769106 oa74g08.s
AT035939 ub49f08.r
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AI689325 tx93h03.x
AA469546 vf67d07.r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AZ616246 1M0446A06
BZ592795 SALK 0291
BJ036242 BJ036242
BB316566 NF057A06L
BB318074 NF062F01L
BB325120 NF114F06S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BM342544 fw45b12.y
CD028622 mgcm002xP
AF219062 AF219062
AZ317235 1M0035K12
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BM566536 kj63f12.y
CB914166 VVD009E07
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AA189463 mt79f06.r
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BX122063 Danio rer
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BH811599 SALK_0591
                                        (Theobroma cacao
                                                               Rankin, D.,
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AU009104
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                                                        source
                                                                  Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error: 0.
Plate: 0216 row: F column: 14
Seq primer: CGTTGTAAAACGACGGCCAGT
Class: plasmid ends
High quality sequence stop: 96.
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: Paul.Jones@eu.effem.com
Seq primer: T3.
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3d Dundee Road, Slough,
Tel: +44 1664 416644
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12;
                                                                                                                                                                                                Unpublished
Contact: Robert B. W
University of Utah G
University of Utah
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                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
1 (bases 1 to 96)
                                                                                                                                                                                                                                                                                                                                                                                                    96 bp DNA linear GSS 03-OCT-201
IM0216F14F Mouse 10kb plasmid UUGC1M library Mus musculus genomic
clone UUGC1M0216F14 F, genomic survey sequence.
AZ431360
                                                                                                                                                                                                                                                                  Dunn,D., Aoyagi,A., Barber,M., Beacorn,T., Duval,B., Hamil,C., Islam,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Reilly,M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A. and Wright,D.,Weiss,R.
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                                                                                                                                                                                                                                                                                                                                                     Mus musculus
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Fax: 801 585 7177
                                                                                                                                                                                                                                               plasmid inserts
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308,
USA
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/lab_host="XL-1 Blue MRF'"
/clone lib="Cac_BL (Bean and Cacao)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="Vector: pBK-CMV; Bean Amelonado type Cacao tree." a 17 c 27 g 18 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone="Cac_BL_5432"
/tissue_type="Mature leaf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Theobroma cacao"
/mol type="mRNA"
/strain="Amelonado type"
/db_xref="taxon:3641"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                        Biomedical
            /mol_type="genomic DNA"
/strain="C57BL/6J"
/db_xref="taxon:10090"
  /clone="UUGC1M0216F14"
                                              organism="Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     76.2%;
80.0%;
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                                                                                                                                                                                                                                                          scaffolding with paired end reads from 10kb
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Rodentia;
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pred. No. 1.2e+04;
2; Mismatches 1
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Sciurognathi; Muridae; Murinae; Mus.
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ACCESSION VERSION KEYWORDS

SOURCE

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BASE COUNT
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Best Local Similarity
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                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                          Contact: Robert B. Weiss
University of Utah Genome Center
University of Utah
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100 bp DNA linear GSS 14-DEC-2011M0535M02F Mouse 10kb plasmid UUGC1M library Mus musculus genomic clone UUGC1M0535M02 F, genomic survey sequence
                                                                                                                               Seq primer: CGTTGTAAAACGACGGCCAGT
Class: plasmid ends
High quality sequence stop: 100.
                                                                                                                                                                                                            Tel: 801 585 5606
Fax: 801 585 7177
Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error: 0.00
Plate: 0535 row: M column: 02
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                                                                                                                                                                                                                            308,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   adaptored vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."

32 c 12 g 21 t
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                                                                                                                                                                                                                                                                                                                                                                         Biomedical Polymers Research Bldg., 20 S. 2030 E.,
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/Clome_lib="Mouse_10kb_plasmid_UUGC1M_library.
/note="Vector: PW021nv; Purified genomic_DNA_from M.
musculus C57BL/6J (male) was obtained from the Jackso
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/mol_type="genomic DNA"
/strain="C57BL/6J"
                                                                                                           Location/Qualifiers
                                                       organism="Mus musculus'
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Pred. No. 2.1e+04;
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SOURCE KEYWORDS

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                                                                                                                                                                                                                                                                                                  DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.B. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLCM1317 row: b column: 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: cgapbs-r@mail.nih.gov
Tissue Procurement: DCTD/DTP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 44)
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                                                                                                                                                                                                                                                                           High quality sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pMD42 (gi|4732114|gb|AF129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynuclectide kinase. Adaptor oligonuclectides were ligated to the blunt ends in high molar excess. The adaptored DNA was purified and size-selected for a 9.5 to
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/clone_lib="Mouse 10kb plasmid UUGCIM library"
/note="Vector: PWD42nv; Purified genomic DNA from M.
musculus C57BL/6J (male) was obtained from the Jackso
/clone_lib="NIH_MGC_14"
/note="Organ: kIdney; Vector: pOTB7; Site_1: XhoI; Site_2:
EcoRI; cDNA made by oligo-dT priming. Directionally
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                                                                      /clone="IMAGE:4587189"
/tissue_type="renal_cell_adenocarcinoma"
/lab_host="DH10B (phage-resistant)"
                                                                                                                                                                             organism="Homo sapiens"
|mol_type="mRNA"
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                                                                                                                                                        db_xref="taxon:9606"
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84.6%;
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Pred. No. 2.2e+04;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Souciet, J.L., Aigle, M., Artiguenave, F., Blandin, G.,
Bolotin-Fukuhara, M., Bon, E., Brottier, F., D., Casaregolla, S.,
de-Montigny, J., Dujon, B., Durrens, P., Lepingle, A., Llorente, B.,
Malpertuy, A., Neuveglise, C., Ozier-Kalogeropoulos, O., Potier, S.,
Saurin, W., Tekaia, F., Toffano-Nioche, C., Wesolowski-Louvel, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CNS06E2T 60 bp DNA linear GSS 17-UT 3 end of clone AROAA018A08 of library AROAA from strain CBS 2ygosaccharomyces rouxii, genomic survey sequence.
                                                                                                                                                                                                                                                                                                              Submitted (06-SEP-2000) Genoscope - Centre National de Sequencage, 2 rue Gaston Cremieux, CP 5706, 91057 EVRY cedex, FRANCE. (E-mail: seqrefégenoscope.cns.fr - Web : www.genoscope.cns.fr)
This GSS is part of a random genomic sequencing program of thirteen yeast species: Saccharomyces bayanus var. uvarum, Saccharomyces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          de Montigny,J., Straub,M., Potier,S., Tekaia,F., Dujon,B., Wincker,P., Artiguenave,F. and Souciet,J.
Genomic exploration of the hemiascomycetous yeasts: 8.
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Zygosaccharomyces rouxii
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AL394587
AL394587.1 GI:12145628
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
                                                                                         lactis var. lactis, Kluyveromyces marxianus var. marxianus, Pichia angusta, Debaryomyces hansenii var. hansenii, Pichia sorbitophila, Candida tropicalis and Yarrowia lipolytica. Genomic inserts of 3 to 5 kb were prepared and both extremities were sequenced. See keywords for description of this sequence and for the sequence of the other extremity of this insert.
                                                                                                                                                                                                                                                                    exiguus, Saccharomyces servazzii, Zygosaccharomyces rouxii,
Saccharomyces kluyveri, Kluyveromyces thermotolerans, Kluyveromyces
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Direct Submission
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 60)
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                  mol_type="genomic DNA"
                                            organism="Zygosaccharomyces"
strain="CBS 732"
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75.0%;
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Pred. No. 2e+04;
2; Mismatches 2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Laboratory of Molecular Biotechnology
Genome Institute of Singapore
1 Science Park Road, The Capricorn #05-01, Singapore 117528
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CB366166
FT bp mRNA linear EST 17-MAR-;
ZF001-P00049-DPB-F2-D F10 GISZF001 Danio rerio cDNA clone
IMAGE:6910149 5' similar to fp15a03.y1 zabrafish gridded kidney
Danio rerio cDNA clone IMAGE:4729612 5' similar to WP:CE25522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 GGCTAGCHACAACGA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Plate: ZF001-P00049-DPE-F2-D
Seq primer: CCGCATAACTTGTATAGCA
High quality sequence stop: 67.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mathavan,S., Wei,C., Thoreau,H., Chia,J.M. and Ruan,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 (bases 1 to 67)
Mathavan, S., Wei, C.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: gisry@nus.edu.sg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Ruan Y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Y61A9LA.E, mRNA sequence.
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  19
                                    site GGCCGCCTCGGCC; 3'linker/adaptor sequence: same as the priming sequence; Average insert size: 2kb; For PCR insert analysis: Use M13 Forward and reverse primers; Library Amplified Recombinants (inserts): 98%; Library complexity: 5x106; Pull-length construction (method): SMART, a Clontech method; Library constructed by: S. Mathavan, Chia-Lin Wei, and Yilun Ruan Constructed by: S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone_lib="AR0AA"
/note="end : T3"
25 c 11 g
                                                                                                                                                                                                 /clone lib="GISZF001"
/clone lib="GISZF001"
/note="vector: pDNR-LIB; Site_1: Sfi A (GGCCATTACGGCC);
/note="vector: pDNR-LIB; Site_1: Sfi A (GT) 30
Site_2: Sfi B (GGCCGCTCGGCC); Priming method: Sfi (dT) 30
Primed; Priming sequence: 5.ATTCTAGA GGCCGAGGGGCC
GACATG(T) 30VN; Directionally cloned, 5' cloning site: Sfi B site GGCCATTACGGCCC; 5' linker/adaptor sequence: Sfi A site GGCCATTACGGCCC; 3' cloning site: Sfi B 5.AAGCAGTGGTATCAACGCAGAGTGGCC; 3' cloning site: Sfi B
  Singapore"
19 c
                                                                                                                                                                                                                                                                                                                                                       /tissue_type="Embryo"
/dev stage="7 Different embryonic Stages( From just
fertilized Embryos to 72 hours just hatched baby fish)"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                                        /mol_type="mRNA"
/db_xref="taxon:7955"
/clone="IMAGE:6910149"
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Best Local Similarity
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AB953865
on76a12.sl Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone
IMAGE:1562590 3' similar to TR:Q92615 Q92615 MYELOBLAST KIAA0217 ;,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Details of T. brucei sequencing at the Sanger Centre at http://www.sanger.ac.uk/Projects/T_brucei/.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              to give a tight size distribution (
4 kb). The v + i method used for the library construction is described in detail in Smith, H. and Venter, J.C. (Making small insert libraries for whole genome shotgun sequencing projects. Genome Sequencing: A Practical Approach, eds. M. Vaudin and B. Barrell, Oxford University Press, 1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Constructed at the Institute for Genomic Research (TIGR), Rockville, MD. Genomic DNA isolated from a cloned population Trypanosoma brucei (TREU927/4 GUTat 10.1) was mechanically sh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
Submitted (10-DEC-2000) Trypanosoma brucei genome sequencing project, Sanger Centre, The Wellcome Trust Genome Campus, Hinxton, Cambridge CB10 15A, B-mail: barrell@sanger.ac.uk and nhl@sanger.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 RGGCTAGCHACAACGA 16
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Homo sapiens (human)
                                 AA953865.1 GI:3116783
                                                   AA953865
                                                                   mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Barrell, Oxford Universit
Email: nelsayed@tigr.org
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                                                                                                                                                                                                                                                                                                                                                                                                            organism="Trypanosoma"
/mol_type="genomic DNA"
/strain="TREU927"
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/clone="87h09"
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                                                                                                                                        Islam, H., Longacre, S., Mahmoud, M., Meenen, E., Pedersen, T., Reilly, M., Rose, M., Rose, R., Stokes, R., Tingey, A., von Niederhausern, A., Mouse whole genome scaffolding with mainty plasmid income.
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                                                       University of Utah University of Utah
                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Mammalia; Butheria; Rodentia;
                                                                                                                                                                                                                                                                                                              Mus musculus
                                                                                                                                                                                                                                                                                                                                                        SSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
This clone is available royalty-free
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 88)
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                    84112,
                                    Rm. 308,
                                                                                                 Contact: Robert B.
                                                                                                                Unpublished
                                                                                                                                                                                                                                                                                                                                  Mus musculus (house mouse)
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Tel: 801 585 5606
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/clone lib="Soares NFL T GBC S1"
/note="Organ: pooled; Vector: p7773D-Pac (Pharmacia) with a modified polylinker; Site 1: NCI I; Site 2: Eco RI; Equal amounts of plasmid DNA from three normalized libraries (fetal lung NbHL19W, testis NHT, and B-cell NCI CGAP GCB1) were mixed, and ss circles were made in vitro. Following HAP purification, this DNA was used as tracer in a subtractive hybridization reaction. The driver was PCR-amplified cDNAs from pools of 5,000 clones made from the same 3 libraries. The pools consisted of I.M.A.G.E. clones 297480-302087, 682632-687239, 726408-728711, and 72996-731399. Subtraction by Bento Soares and M. Fatima Bonaldo. "
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mol_type="mRNA"

db_xref="taxon:9606"
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'lab_host="DH10B"
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Pred. No. 2.7e+04;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Seq primer: CGTTGTAAAACGACGGCCAGT
Class: plasmid ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: ddunn@genetics.utah.edu
Insert Length: 1000 Std Err
Plate: 0421 row: H column: 0
                                             Tel: 650 723 2227
Fax: 650 725 8221
                                                                                        855 California Ave, Palo Alto,
                                                                                                                  Stanford University
                                                                                                                                      Contact: Walbot V
Department of Biological Sciences
                                                                                                                                                                                                                                                                         Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Zea.
                                                                                                                                                                                                                                                                                                                                                   Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                 SSD
                                                                                                                                                                                                                                                                                                                                                                                                                      BH215494.1 GI:16806152
                                                                                                                                                                                                                                                                                                                                                                                                                                            BH215494
                                                                                                                                                                                                                                                                                                                                                                                                                                                               survey sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1006027C12.2EL_y2 1006 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BH215494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  High quality sequence stop: 90.
Possible ligation site of ends cut by 2 different endonucleases.
                                                                                                                                                                                                           Maize genomic sequences found using engineered RescueMu transposon
                                                                                                                                                                                                                                                                                                                                                                         Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RGGCTAGCHACAACGA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGCTGGCCACAACTA 50
                                                                                                                                                                                                                                                    (bases 1 to 93)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptored DNA was purified and in high molar excess. The adaptored DNA was purified and esselected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to
                                                                                                                                                                                     ished
                          walbot@stanford.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               adaptored vector DNA, and transformed into chemically-competent E. coli XI10-Gold (Stratagene) cells and selected for ampicillin resistance."

18 c 28 g 30 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /lab_host="B. Coli strain XL10-Gold, T1-resistant, F-" /clone lib="Mouse 10kb plasmid UUGCIM library" /note="Vector: pWp42nv; Purified genomic DNA from M. musculus C57BL/6J (male) was obtained from the Jackson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (http://www.jax.org/resources/documents/dnares/).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                aboratory Mouse DNA Resource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'sex="Male
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         clone="UUGC1M0421H09"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         72.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 11.6; DB 28;
Pred. No. 2.7e+04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     93 bp DNA
RescueMu Grid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Error:
                                                                                          CA 94304,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear GSS 08-NOV-2001
G Zea mays genomic, genomic
                                                                                          TSD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 90;
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REFERENCE
AUTHORS
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VERSION
KEYWORDS
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BG695449/c
LOCUS
                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l Similarity
12; Conserv
                                                                                                                                                                                                                                                                       Email: cgapbs-r@mail.nih.gov

cDNA Library Preparation: M. Bento Soares Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium/LLNL

DNA Sequencing by: National Institutes of Health Intramural

Sequencing Center (NISC)

Clone distribution: NCI-CGAP clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 GGCTAGCHACAACG 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NISC iv17f07.w2 Soares NMBP2 pit IMAGE:4318212 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Class: transposon-tagged
                                                                                                                                                            Seq primer: T7
                                                                                                                                                                                                                             found through the I.M.A.G.E. Consortium/LLNL info@image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Plate: 1006027 row:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Reverse complemented post-ligation sequence from source sequence.
                                                                                                                                                                                   Plate: LLAM9923 row: K
                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tumor Gene Index
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BG695449.1 GI:13955375
                                                                                                                                                                                                          MGI:1598980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCAAGCAACAACG 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to 99)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /lab_host="phide"
/lab_host="phide"
/clone_lib="1006" RescueMu Grid G"
/clone_lib="1006" RescueMu (engineered from
/note="Organ: leaf; Vector: RescueMu (engineered from
/note="Organ: leaf; Vector: RescueMu (engineered from
/note="Colored from total genomic blackbone); Site_1: BamHI; Site_2: BglII;

RescueMu is a 4.9 kb, modified maize Mu transposon
designed to allow plasmid rescue from total genomic DNA.
Mu elements insert preferentially into transcription
Mu elements insert preferentially into transcription
units. For more information on RescueMu, go to the web
site 'www.zmdb.iastate.edu' and follow the links for
'RescueMu.' Grid G was grown at Stanford in 2000. DNA was
extracted from leaf punches, double digested using BamHI
and BglII, and ligated to form circular plasmids. DH10B
cells were transformed and then screened on LB plates with
tissue_type="pituitary gland"
                                              /mol_type="mRNA"
/db_xref="taxon:10090"
                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    location/Qualifiers
                                                                                        organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tissue_type="leaf"
                           clone="IMAGE: 4318212"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         db_xref="taxon:4577"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cultivar="mixed background W23/A188/B73"
                                                                                                                    . 99
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85.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 11.6; DB 28;
Pred. No. 2.7e+04;
L; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    39 g
                                                                                                                                                                                     column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gd 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                pituitary Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
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CDNA clone
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SOURCE
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BQ625306
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
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                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
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                                                                                                                                                                                                                                                                                                                                                                       Email: est@watson.wustl.edu
The library was constructed by Claire Murphy and Dr. James McCarter
The library was constructed by Claire Murphy and Dr. James McCarter
at Washington University, St. Louis. Meloidogyne incognita eggs
were provided by Andrew Kloek of Divergence Inc., St. Louis, Mo.
Putative full length read
The vector to vector length is 101
Seq primer: -40RP from Gibco.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The Washington Univ. Nematode EST Project, 1999 Washington University School of Medicine 4444 Forest Park Parkway, Box 8501, St. Louis, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        McCarter, J., Clifton, S., Chiapelli, B., Pape, D., Martin, J., Wylie, T., Dante, M., Marra, M., Hillier, L., Kucaba, T., Theising, B., Bowers, Y., Dante, M., Marra, M., Hillier, L., Franklin, C., Taggareishvili, R., Gibbons, M., Ritter, E., Bennett, J., Franklin, C., Taggareishvili, R., Ronko, I., Kennedy, S., Maguire, L., Beck, C., Underwood, K., Steptoe, M., Allen, M., Person, B., Swaller, T., Harvey, N., Schurk, R., Kohn, S., Shin, T., Jackson, Y., Cardenas, M., McCann, R., Waterston, R. and Wilson P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unpublished
Contact: McCarter JP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The Washington Univ. Nematode EST Project,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wilson, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Nematoda; Chromadorea; Tylenchida; Tylenchina;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Meloidogyme incognita
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Meloidogyne incognita (southern root-knot nematode)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BQ625306.1 GI:21652484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rd27g03.y1 Meloidogyne incognita egg SL1 TOPO v1 Meloidogyne
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BQ625306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tylenchoidea; Heteroderidae; Meloidogyninae; Meloidogyne.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               incognita cDNA 5', mRNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RGGCTAGCHACAACGA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGTTAGCAACAACAA 61
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314 286 1810
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/organism="Meloidogyne incognita"
/mol type="mRNA"
/mol type="mRNA"
/mol type="mRNA"
/db xref="taxon:6306"
/db xref="taxon:6306"
/dev stage="egg" (Invitrogen)"
/lab host="PH10B (Invitrogen)"
/clone lib="Meloidogyne incognita egg SL1 TOPO v1"
/note="Wector: pCRII-TOPO (Invitrogen); Site 1: EcoRI;
Site 2: EcoRI; The library was constructed by Claire
Murphy and Dr. James McCarter at Washington University,
St. Louis. Oligo(dT)-SL1 PCR based library. cDNA PCR
products of size >400 nucleotides containing SL1 on the 5'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   double-stranded cDNA was ligated to EcoRI adaptors 5'-AATTCGGCACGAGG-3' AND 5'-CCTCGTGCCG-3' (pharmacia), digested with NotI and cloned into the NotI and EcoRI sites of the pTTT3D-PacI vector. Library went through round of normalization, and was constructed in the laboratory of M. Bento Soares (University of Iowa)."

21 c 33 g 35 t
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/clone_lib="Soares NMBP2 pituitary"
/note="Organ: brain; Vector: pT7T3D-Pac;
                                                                                                                                                                                                                                                                                                                                                ocation/Qualifiers
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/lab_host="DH10B (phage-res
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75.0%;
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Pred. No. 2.8e+04;
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Best Local
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                                         2 GGCTAGCHACAA 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Joseph R. Ecker
Salk Institute Genomic Analysis Laboratory (SIGnAL)
The Salk Institute of Biological Studies
10010 N. Torrey Pines Road, La Jolla, CA 92037, USA
Tel: 858 453 4100 x1752
Fax: 858 558 6379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alonso, J.M., Leisse, T.J., Barajas, P., Chen, H., C., Jeske, A., Karnes, M., Kim, C.J., Parker, H., Zimmerman, J. and Ecker, J.R.
A Sequence-Indexed Library of Insertion Mutatic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Arabidopsis thallana Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.

1 (Dases II; 10, 26)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BH901408 26 bp DNA linear GSS SALK 079024.36.15.x Arabidopsis thaliana TDNA insertion Arabidopsis thaliana genomic clone SALK 079024.36.15.x,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 RGGCTAGCHACAACGA 16
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12; Conser
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                                                                                                      Similarity
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                                                                                   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ecker@salk.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      end and oligo(dT) on the 3' end were non-directionally cloned into pCRII-TOPO(Invitrogen) following the Topo TA cloning protocol. Meloidogyne incognita eggs were provided by Andrew Kloek of Divergence Inc., St. Louis, MO." a 29 c 15 g 17 t
                                                                                                                                                                                   directly sequenced to determine the genomic sequence at the site of insertion. Details of the protocols used can be found at http://signal.salk.edu/tdna_protocols.html" 6 c 3 g 11 t
                                                                                                                                                                                                                                                                    /clone_lib="Ārabidopsis thallana TDNA insertion lines"
/note="PCR was performed on Arabidopsis thallana lines
each of which contains one or more TDNA insertion
elements. The resultant fragment for each line was
                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Arabidopsis thaliana"
/mol_type="genomic DNA"
/strain="Columbia 0"
                                                                                                                                                                                                                                                                                                                                                       /db_xref="taxon:3702"
/clone="SALK_079024.36.15.x"
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91.7%;
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Pred. No. 2.8e+04;
1; Mismatches 0
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Pred. No. 2.8e+04;
2; Mismatches 2
                                                                                                                        DB 28;
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AQ025306/c
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                                                                                                                                                                                                                                                                           Local Similarity
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             אמע באר GSS 05-AUG-200 בארא O87974 Arabidopsis thaliana TDNA insertion lines Arabidopsis thaliana tDNA insertion lines Arabidopsis thaliana genomic clone SALK_087974, genomic survey sequence.

BH861777
BH861777.1 GI:22097103
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BP(3)3213 Drosophila melanogaster EP line genomic Sequence recovered from 5' end of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Class: transposon-tage
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University of California, Berkeley
LSA Building, Berkeley, CA 94720-3200,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The P element insertion position
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence orientation is forward strand relative to 5'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Drosophila melanogaster
Proc. Natl. Acad. Sci. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Liao, G.-C., Rehm, E.J. and Rubin, G.M.
Insertion site preferences of the P transposable element
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
1 (bases 1 to 34)
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                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                        /clone lib="Drosophila melanogaster EP line"
/note="Inverse PCR was performed on Drosophila
melanogaster strains each of which contains a single EP
transposable element insertion. (The generation of these
insertion strains is described in Rorth P, Szabo K, Bailey
A, Laverty T, Rehm J, Rubin GM, Weigmann K, Milan M, Benes
V, Ansorge W, Cohen SM. 1998. Systematic gain-of-function
genetics in Drosophila. Development 6:1049-1057.) The
resultant fragment for each strain was directly sequenced
to determine the genomic sequence at the site of
insertion. Details of the protocols used can be found at
http://fruitfly.berkeley.edu/p_disrupt/inverse_pcr.html."
4 a 13 c 10 g 7 t
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               recovery method
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/mol_type="genomic DNA"
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                                                                                                                                                                                                                                                                         70.0%;
78.6%;
                                                                                                                                                                                                                                                                         Score 11.2; DB 28
Pred. No. 3.1e+04;
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first base
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melanogaster
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49 bp DNA linear GSS 05-AUG-2002 SALK 087975 Arabidopsis thaliana TDNA insertion lines Arabidopsis thaliana genomic clone SALK_087975, genomic survey sequence.
BH861778
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Contact: Joseph R. Ecker
Salk Institute Genomic Analysis Laboratory (SIGnAL)
The Salk Institute for Biological Studies
10010 N. Torrey Pines Road, La Jolla, CA 92037, USA
Tel: 858 453 4100 x1752
                                                                                                                                                                                                  Salk Institute Genomic Analysis Laboratory (SIGnAL) The Salk Institute for Biological Studies 10010 N. Torrey Pines Road, La Jolla, CA 92037, USA Tel: 858 453 4100 x1752
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, Zimmerman,J. and Ecker,J.R.
A Sequence-Indexed Library of
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[ (bases 1 to 49)
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                                                                                                               Unpublished
                                                                                                                                                                                                                                                                                Spermatophyta; Magnoliophyta; eudicotyledons; core eud; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
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                                                                                                                                          Arabidopsis Genome
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Zimmerman,J. and Ecker,J.R.
Sequence-Indexed Library of Insertion
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/note="PCR was performed on Arabidopsis thaliana lines
each of which contains one or more Thinsertion
elements. The resultant fragment for each line was
directly sequenced to determine the genomic sequence at
the site of insertion. Details of the protocols used ca
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strain="Columbia 0"
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91.7%;
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Pred. No. 3.6e
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Kim,C.J., Parker,H.,
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Parker,H.,
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                                                                            Contact: Marra M/Mouse EST Project
WashU-HHMI Mouse EST Project
washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Ld
Tel: 314 286 1800
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This is single pass sequence recovered from the left border of
TDNA. This sequence lies within an annotated exon of At5g01330.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Geisel, S., Kucaba, T., Lacy, M., Le, M., Martin, J., Morris M., Schellenberg, K., Steptoe, M., Tan, F., Underwood, K., Moore, B., Theising, B., Wylie, T., Lennon, G., Soares, B., Wilson, R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AA142563 55 bp mRNA linear EST 18-FEB-1 mq59b11.rl Soares thymus 2NbMT Mus musculus cDNA clone IMAGE:583 5' similar to TR:G1203965 G1203965 BONE-DERIVED GROWTH FACTOR;
                                                                                                                                                                                                                              Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Marra, M., Hillier, L., Allen, M., Bowles, M., Dietrich, N., Dubuque, T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                      Trace considered overall poor quality possible reversed clone; similarity or seq primer: -28M13 rev2 from Amersham
                                                                                                                                                                                                              MGI:357653
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/note="PCR was performed on Arabidopsis thaliana lines
each of which contains one or more TDNA insertion
elements. The resultant fragment for each line was
directly sequenced to determine the genomic sequence at
the site of insertion. Details of the protocols used can
be found at http://signal.salk.edu/tdna_protocols.html"
a 9 c 15 g 18 t
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/strain="Columbia 0"
/organism="Mus musculus"
/mol_type="mRNA"
/strain="C57BL/6J"
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91.7%;
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Populus tremula x Populus tremuloides
Populus tremula x Populus tremuloides
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids
Fernatiophyta; Magnoliophyta; eudicaceae; Populus.
                          1 RGGCTAGCHACAAC 14
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                                                                                                                                                                                                                                                                                                     Umea Plant Science Center
Department of Plant Physiology
University of Umea, 901 87 Umea,
                                                                                                                                                                                                                                                                                                                                                                                              1 (bases 1 to 75)
Unneberg, P., Bhalerao, R.R., Jansson, S. and Sterky, F.
The poplar tree transcriptome: Analysis of expressed sequence tags
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BU866082
                                                                                                                                                                                                                                                         Email: rupali.bhalerao@plantphys.umu.se
                                                                                                                                                                                                                                                                         Tel: +46 90 786 5279 Fax: +46 90 786 6676
                                                                                                                                                                                                                                                                                                                                                     Contact: BHALERAO RUPALI R.
                                                                                                                                                                                                                                                                                                                                                                  Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BU866082.1 GI:24056736
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                                                                          Similarity
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/mol type="mRNA"
/db xref="taxon:47664"
/tissue type="imbibed seed"
/clone lib="Populus imbibed seed cDNA library"
20 c 12 g 20 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /dev_stage="4 weeks"
/lab_host="DH10B"
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78.6%;
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78.6%;
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Pred. No. 4.2e+04;
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Matches 11
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5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Shoemaker R/Public Soybean EST Project Public Soybean EST Project Washington University School of Medicine 4444 Forest Park Parkway, Box 8501, St. Louis, N Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Shoemaker,R., Keim,P., Vodkin,L., Erpelding,J., Coryell,V., Khanna,A., Bolla,B., Marra,M., Hillier,L., Kucaba,T., Martin,J., Beck,C., Wylie,T., Underwood,K., Steptoe,M., Theising,B., Allen,M., Bowers,Y., Person,B., Swaller,T., Gibbons,M., Pape,D., Harvey,N., Schurk,R., Ritter,E., Kohn,S., Shin,T., Jackson,Y., Cardenas,M., McCann,R., Waterston,R., and Wilson,R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CA819431
CA819431.1 GI:26268368
EST.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: est@watson.wustl.edu
This clone is available through: ResGen, Invitrogen Corp. 2130
South Memorial Parkway Huntsville, AL 35801 For further information
call: (800)-533-4363 or contact: ccu@resgen.com web site:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosid; eurosids I; Fabales; Fabaceae; Papilionoideae; Phaseoleae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Glycine max
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Glycine max (soybean)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            vector to vector length is 78 Seq primer: -40RP from Gibco.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Public Soybean EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Putative full length read
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              www.resgen.com
                                                                                                                                Similarity
                                                  CTAGCHACAACG 15
CTAGCCACAACG
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                                                                                                                                                                                                                            /note="Wector: pSPORT1; Site 1: Not1; Site 2: Sal1; The cDNA library was constructed from mRNA isolated from immature pods (approximately 2cm long) of greenhouse grown plants. The library was prepared using the Life Technologies pSuperScript cDNA library construction kit. Complementary DNA was synthesized from mRNA using a poly(dT) sequence with a Not1 restrictions site. Sal1 linkers adapters were ligated to the blunt-ended cDNA fragments followed by Not1 digestion. The cDNA fragments were directionally cloned into the Not1-Sal1 restriction site of the pSpORT1 vector. The ligated cDNA fragments were transformed into E.coli ElectroMax DH10B host cells. This library was constructed in the laboratory of Dr. Lila Vockin by Anu Khanna at the University of Illinios at Urbana-Champaign. email: 1-vockin@uiuc.edu"
                                                                                                                                                                                                                                          18
                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             grown plants"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tissue type="immature pods (~2cm long) of greenhouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 organism="Glycine max"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          lab host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               l_type="mRNA"
_xref="taxon:3847"
                                                                                                                             70.0%;
91.7%;
                                                                                                                                Score 11.2; DB 14
Pred. No. 4.3e+04;
                                                                                                          Mismatches
                                                                                                                                                            DB 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Louis, MO 63108,
                                                                                                       Indels
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RESULT 20

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REFERENCE
AUTHORS
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                                                                   RESULT 21
AZ362937
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                                                                                                                                                                    5.
4.
AZ362937 92 bp DNA linear IM0108B18F Mouse 10kb plasmid UUGC1M library Mus clone UUGC1M0108B18 F, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuque,T. Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA183068 85 bp mRNA linear EST 07-JAN-1997 mt86e09.rl Soares mouse lymph node NbMLN Mus musculus cDNA clone IMAGE:636808 5' similar to TR:G1203965 G1203965 BONE-DERIVED GROWTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Possible reversed clone: similarity on wrong strand
Seq primer: -28M13 rev2 from Amersham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Washington University School of MedicineP
44444 Forest Park Parkway, Box 8501, St. Lo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The WashU-HHMI Mouse EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     High quality sequence stop: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WashU-HHMI Mouse EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Marra M/Mouse EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Waterston, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Trace considered overall poor quality
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MGI:388800
                                                                                                                                                                                                                  RGGCTAGCHACAAC 14
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                                                                                                                                                                                                                                                                Conservative
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                                                                                                                                                                                                                                                                                                                                                                          normalized by Bento Soares and M.Fatima Bonaldo."
26 c 21 g 19 t
                                                                                                                                                                                                                                                                                                                                                                                                                        3']; double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not and Eco RI sites of the modified pT7T3 vector. RNA provided by Dr. Bertrand Jordan. Library constructed and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone_lib="Soares mouse lymph node NbMLN"
/note="Organ: lymph node; Vector: pT7T3D-Pac (Pharmacia)
with a modified polylinker; Site 1: Not I; Site 2: Eco RI;
ist strand cDNA was primed with a Not I - oligo(dT) primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /tissue_type="lymph node"
/dev_stage="4 weeks"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /mol_type="mRNA"
/strain="C57BL/6J"
/db_xref="taxon:10090"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         clone="IMAGE: 636808"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sex="male"
                                                                                                                                                                                                                                                                                   70.0%;
78.6%;
                                                                                                                                                                                                                                                           Score 11.2; DB 9;
Pred. No. 4.4e+04;
2; Mismatches 1;
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                                                                                                                                                                                                                                                                                                         Length
                                 musculus
                                                     GSS 02-OCT-2000
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                                                                                                                          RESULT 22
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Insert Length: 1000 Std Error: 0.00
Plate: 0108 row: B column: 18
Seq primer: CGTTGTAAAACGACGGCCAGT
Clobe: 1010 column: 18

BZ291268 92 bp DNA linear GSS SALK_120055.25.10.x Arabidopsis thaliana TDNA insertion
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Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Duval, B., Hamil, C.,

Islam, H., Longacre, S., Mahmoud, M., Meenen, B., Pedersen, T., Reilly

,M., Rose, M., Rose, R., Stokes, R., Tingey, A., von Niederhausern, A.,

and Wright, D., Weiss, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AZ362937
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
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                                                                                                                                                                                                                                                GGGCTACCAACAAC 81
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308,
USA
                                                                                                                                                                                                                                                                                                                                                                                              70.0%;
ilarity 78.6%;
Conservative
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801 585 7177
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Laboratory Mouse DNA Resource
(http://www.jax.org/resources/documents/dnares/). The DNA
was hydrodynamically sheared by repeated passage through a
0.005 inch orifice at constant velocity. The sheared DNA
0.005 inch orifice at constant velocity. The sheared DNA
was blunt end-repaired with T4 DNA polymerase and T4
polynucleotide kinase. Adaptor oligonucleotides were
ligated to the blunt ends in high molar excess. The
adaptored DNA was purified and size-selected for a 9.5 to
10.5 kb range using preparative agarose gel
electrophoresis. Vector DNA was prepared from a derivative
of pWD42 (gi|4732114|gb|AF129072.1), a copy-number
inducible derivative of plasmid R1. The vector was ligated
with adaptors complementary to the insert adaptors and
purified. The sheared, adaptored mouse DNA was ambealed to
adaptored vector DNA, and transformed into
chemically-competent E, coli XL10-Gold (Stratagene) cells
and selected for ampicillin resistance."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /lab_host="E. Coli strain XL10-Gold, Tl'-resistant, F-"
/clone lib="Mouse 10kb plasmid UUGCIM library"
/note="Vector: pWD42nv; Purified genomic DNA from M.
musculus C57BL/6J (male) was obtained from the Jackson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /mol_type="genomic DNA"
/strain="C57BL/6J"
/db_xref="taxon:10090"
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Rodentia;
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                                                                                                                                                                                                                                                                                                                                                                                                  Score 11.2; DB 28;
Pred. No. 4.6e+04;
2; Mismatches 1;
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. 4.6e+04;
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BU867160/c
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                                         Unneberg, P., Bhalerao, R.R., Jar
The poplar tree transcriptome:
from multiple libraries
Unpublished
                                                                                                                                                         Populus tremula x Populus tremuloides
Populus tremula x Populus tremuloides
Populus tremula x Populus tremuloides
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Eukaryota; Magnoliophyta; eudicotyledons; core eudicots; roside
; eurosids I; Malpighiales; Salicaceae; Populus.
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Contact: BHALERAO RUPALI R. Umea Plant Science Center
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                                                                                                                                                                                                                                                                                                                                                                            BU867160 95 bp mRNA linear EST 16-OCT-2002 S075A07 Populus imbibed seed cDNA library Populus tremula x Populus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tel: 858 453 4100 x1752 Fax: 858 558 6379 Email: ecker@salk.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Salk Institute Genomic Analysis Laboratory (SIGnAL)
The Salk Institute for Biological Studies
10010 N. Torrey Pines Road, La Jolla, CA 92037, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alonso,J.M., Leisse,T.J., Barajas,P., Chen,H., Cheuk,R.,,C., Jeske,A., Karnes,M., Kim,C.J., Parker,H., Prednis,L., Zimmerman,J. and Ecker,J.R.

A Sequence-Indexed Library of Insertion Mutations in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnollophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.

1 (bases 1 to 92)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Arabidopsis thaliana
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                                                                                                                                                                                                                                                                                                                                                      tremuloides
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Joseph R. Ecker
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                                                                                                                                      bases 1 to 95)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone="SALK 120055.25.10.x"
/clone lib="Arabidopsis thaliana TDNA insertion lines"
/note="TCR was performed on Arabidopsis thaliana lines
each of which contains one or more TDNA insertion
elements. The resultant fragment for each line was
directly sequenced to determine the genomic sequence at
the site of insertion. Details of the protocols used can
be found at http://signal.salk.edu/tdna_protocols.html"
a 32 c 17 g 18 t
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/mol_type="genomic DNA"
/strain="Columbia 0"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               db_xref="taxon:3702"
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                                                                                                                                                                                                                                                                                                                                                      prime, mRNA sequence
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Pred. No. 4.6e+04;
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                                                                                       Jansson,S. and Sterky,F
ne: Analysis of expressed
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Prednis, L., Shinn, I
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                                                                                            sequence tags
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AW797834/c
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BU862306/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tel: +46 90 786 5279
Fax: +46 90 786 6676
Email: rupali.bhalerao@plantphys.umu
Location/Qualifiers
1. .95
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11; Conserv
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CM0-UM0042-020300-261-e05
AW797834
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                                                                                                                                                                                                                                                                                                                                                                   Email: rupali.bhalerac@plantphys.umu.se
                                                                                                                                                                                                                                                                                                                                                                                                             Umea Plant Science Center
Department of Plant Physiology
University of Umea, 901 87 Umea,
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: BHALERAO RUPALI R.
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                                                                                                                                    RGGCTAGCHACAAC 14
                                                                                                           AGGCTAGCTAGAAC 33
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/db_xref="taxon:47664"
/tissue_type="imbibed seed"
/clone_lib="Populus imbibed
28 c 16 g 26 t
                                                                                                                                                                                                                                           /organism="Populus tremula x Populus tremuloides"
/mol_type="mRNA"
/db xref="taxon:47664"
/tissue_type="imbibed seed"
/clone_lib="Populus imbibed seed cDNA library"
/clone_lib="Populus imbibed seed cDNA library"
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78.6%;
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Pred. No. 4.
                                                                                                                                                                    Score 11.2; DB 13;
Pred. No. 4.6e+04;
2; Mismatches 1;
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s of expressed
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                                  linear
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core eudicots; rosic
                    mRNA sequence.
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BM328423/c
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Best Local Similarity
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1 (bases 1 to 100)

Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F., Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H., Brunstein, A., deOliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and
                                                                                                                                                                                                                                                                                                                                                         15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?tl=&t2=CMO-UM0042-020
300-261-e05&t3=2000-03-02&t4=1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
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                                                                                                                                                                                               BM328423 100 bp mRI
PIC1 29_B03.g1_A002 Pathogen-infected
bicolor cDNA, mRNA sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fax: +55-11-2707001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tel: +55-11-2704922
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                    Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Sorghum.
                                                                                  Sorghum bicolor (sorghum)
Sorghum bicolor
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                                                                                                                                                     BM328423.1 GI:18067560
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(bases 1 to 100)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /dew stage="Adult"
/clone lib="UM0042"
/note="Organ: uterus; Vector: puc18; Site_1: SmaI; Site_2:
/note="Organ: uterus; Vector: puc18; Site_1: SmaI; Site_2:
/note="Organ: uterus; Vector: patent application No. 196
from ORESTES PCR (U.S. Letters Patent application No. 196
- Ludwig Institute for Cancer Research) profiles
into the pUC 18 vector: Reverse transcription of tissue
mRNA and cDNA amplification were performed under low
stringency conditions."
a 34 c 26 g 24 t
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/mol_type="mRNA"
/db_xref="taxon:9606"
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91.7%;
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Pred. No. 4.7e+04;
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(PIC1) Sorghum
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BU861867/c
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                                                                                                                      Populus tremula x Populus tremuloides
Populus tremula x Populus tremuloides
Populus tremula x Populus tremuloides
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
                                                                                                                                                                                                                                                             tremuloides cDNA 5 prime, BU861867
                                                                                                                                                                                                                                                                                                                 BU861867 100 bp mRNA S007G10 Populus imbibed seed cDNA library
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An EST database from Sorghum: plants infected with a compatible
1 (bases 1 to 100)
Unneberg, P., Bhalerao, R.R., Jar
The poplar tree transcriptome:
                                                                              Spermatophyta; Magnoliophyta; eudicotyledons; co; eurosids I; Malpighiales; Salicaceae; Populus.
                                                                                                                                                                                                                                        BU861867.1 GI:24047927
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/note="Vector: pBluescript II SK(-) from Lambda Zap II;
/note="Vector: pBluescript II SK(-) from Lambda Zap II;
Site 1: XhoI; Site 2: EcoRI; Four-week-old sorghum
seedlings were sprayed with spore suspension prepared from
3-week-old FRM421, a sorghum isolate of the anthracnose
pathogen Collectorichum graminicola. Inoculated plants
were kept in a 25 C dark growth chamber with 100% relative
humidity for 24 hr, followed by 12/12 hr of light/dark
cycle at 25 C with 90% relative humidity for another 24
hr. All leaves were harvested and quick frozen with liquid
nitrogen and stored in a -80 C freezer. The library was
made from poly-A RNA in the Cloning vector lambda ZAP II.
Clones to be sequenced were prepared by mass excision.
WARNING: While most or all ESTs are expected to derive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           from the host plant, no effort was made to eliminate ESTs deriving from the pathogen."
15 c 24 g 31 t
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|mol_type="mRNA"
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Bhalerao,R.R., Jansson,S. and Sterky,F. ree transcriptome: Analysis of expressed
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91.7%;
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                                                                                                                                                                                                                                                                                                                                                                      Talk Institute Genomic Analysis Laboratory (SIGnAL)
The Salk Institute for Biological Studies
10010 N. Torrey Pines Road, La Jolla, CA 92037, USA
Tel: 858 453 4100 x1752
Fax: 858 558 6379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alonso,J.M., Leisse,T.J., Barajas,P., Chen,H., Cheuk,R.,
C., Jeske,A., Karnes,M., Kim,C.J., Parker,H., Prednis,L
, Zimmerman,J. and Ecker,J.R.
A Sequence-Indexed Library of Insertion Mutations in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   survey sequence.
CC179318
CC179318.1 GI:30317869
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Unpublished
Contact: BHALERAO RUPALI R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Arabidopsis Genome 
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Spermatophyta; Magnollophyta; eudicotyledons; core eud; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Department of Plant Physiology University of Umea, 901 87 Umea, Sweden
                                                                                                                                                                                                                                                                                           Class: TDNA tagged
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Joseph R. Ecker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Arabidopsis thaliana (thale cress)
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                                                                                                                                                                                                                                                                                                                                  This is single pass sequence recovered
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: rupali.bhalerao@plantphys.umu.se
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                                                                                                                                                                                                                                                                                                                                                       ecker@salk.edu
/db_xref="taxon:3702"
/clone="SALK 067813.35.30.x"
/clone="FArabidopsis thaliana TDNA insertion lines"
/clone=lib="Arabidopsis thaliana TDNA insertion lines"
/note="PCR was performed on Arabidopsis thaliana lines
each of which contains one or more TDNA insertion
elements. The resultant fragment for each line was
directly sequenced to determine the genomic sequence at
the site of insertion. Details of the protocols used car
be found at http://signal.salk.edu/tdna_protocols.html"
                                                                                                                                                                                   organism="Arabidopsis"
/mol_type="genomic_DNA'
/strain="Columbia_0"
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/tissue type="imbibed seed"
/clone lib="Populus imbibed 25 c 20 g 29 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              organism="Populus tremula x Populus tremuloides"
/mol_type="mRNA"
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Prednis, L., Shinn,
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ENU44372 Aspergillus nidulans cle.
cDNA clone SE0877, mRNA sequence.
U44372
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EST.
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Emericella nidulans
Eukaryota; Fungi; Ascomycota; Pezizomycotina; Euroti
                                                                                                                                                                                                                                    N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Keon-Sang Chae
Chonbuk National University
Chonju, 561-756, S. Korea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Quantitative analysis of gene expression in sexual Aspergillus nidulans by sequencing of 3'-directed (FEMS Microbiol. Lett. 138 (1), 71-76 (1996)
                                                                                     AA594999 mENA 1

no31e66.81 NCI CGAP Pr22 Homo sapiens cDNA c

similar to TR:G1234841 G1234841 LIM PROTEIN

AA594999
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Lee,D., Lee,S., Hw
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 Bukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           +82-652-70-3340
                                            sapiens (human)
                                                                                                                                                                                                                                                                                                                                        24
                              sapiens
                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  chaeks@chonbuknms.chonbuk.ac.kr.
                                                                                                                                                                                                                                                                                                                               /cell_type="Hull cell"
/dev_stage="sexual"
/clome_lib="Aspergillus nidulans cleistothecium"
/clome_lib="Aspergillus clones; single-pass seque
/note="3'-directed_cDNA_clones; single-pass seque
/note="3'-directed_cDNA_clones; single-pass seque
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                                                                                                                                                                                                                                                                                                                                                                                                                            /db_xref="taxon:162425"
/clone="SE0877"
                                                                                                                                                                                                                                                                                                                                                                                                                                                         strain="FGSC4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  organism="Emericella nidulans"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                              tissue_type="cleistothecium"
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                                                                                                                                                                                                                                                                              68.8%;
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us cleistothecium
Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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                                                                                                                   CDNA clone
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Emericella nidulans
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IMAGE:1102306 3'
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Tissue Procurement: Michael J. Brownstein, M.D.,
Tissue Procurement: Michael J. Brownstein, M.D.,
Emmert-Buck, M.D., Ph.D.
CDNA Library Preparation: M. Bento Soares, Ph.D.
cDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome
Clone distribution: NCI-CGAP clone distribution
found through the I.M.A.G.E. Consortium/LLNL at:
Shoemaker, R., Keim, P., Vodkin, L., Erpelding, J., Coryell, V., Khanna, A., Bolla, B., Marra, M., Hillier, L., Kucaba, T., Martin, J., Beck, C., Wylie, T., Underwood, K., Steptoe, M., Theising, B., Allen, M., Bowers, Y., Person, B., Swaller, T., Gibbons, M., Pape, D., Harvey, N., Schurk, R., Ritter, E., Kohn, S., Shin, T., Jackson, Y., Cardenas, M., McCann, R., Waterston, R. and Wilson, R.
                                                                                                                                                                                                Glycine max
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosid;
; eurosids I; Fabales; Fabaceae; Papilionoideae; Phaseoleae;
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Seg primer: -40ml3 fwd. ET from Amersham
High quality sequence stop: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anat
                                                                                                                                                                                                                                                                                                                                                                                                                       BE330980 100 bp mRNA
so92a05.y1 Gm-c1041 Glycine max cDNA clone of
Gm-c1041-777 5' similar to TR:Q42897 Q42897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Trace considered overall poor quality Insert Length: 968 Std Error: 0.00
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                                                                                                                                                                                                                                                                                                           Glycine max (soybean)
                                                                                                                                                                                                                                                                                                                                                            BE330980.1
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                                                                                                                                                                                                                                                                                                                                                                                                 ENZYME E2 ;, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="Organ: prostate; Vector: pT7T3D-Pac (Pharmacia)
with a modified polylinker; 1st strand cDNA was prepared
from normal prostate bulk tissue, and was then primed with
a Not I - oligo(dT) primer. Double-stranded cDNA was
ligated to Eco RI adaptors (Pharmacia), digested with Not
I and cloned into the Not I and Eco RI sites of the
modified pT7T3 vector. Library is normalized, and was
constructed by Bento Soares and M. Fatima Bonaldo. "
a 25 c 21 g 13 t
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mol_type="mRNA"

b_xref="taxon:9606"
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clone_lib="NCI_CGAP_Pr22"
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80.0%;
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Pred. No. 5.7e+04;
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SYSTEMS CLONE ID:
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RESULT 32
AU106358/c
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                                                                                                                                                       JOURNAL
MEDLINE
                                                                                                                                                                                                                            TITLE
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                                                                                                                          PUBMED
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Trace considered overall poor quality This clone is available through: ResGen, Invitrogen Corp. 2130 South Memorial Parkway Huntsville, AL 35801 For further information call: (800)-533-4363 or contact via email: ccu@resgen.com High quality sequence stop: 1.
                                                                                                                                                                   Suzuki,Y., Taira,H., Tsunoda,T., Mizushima-Sugano,J., Sese,J., Ha, Ha,T., Isogai,T., Tanaka,T., Morishita,S., Okubo,K., Sakaki,Y., Nakamura,Y., Suyama, and Sugano,S.
Diverse transcriptional initiation revealed by fine, large-scale mapping of mRNA start sites
EMBO Rep. 2 (5), 388-393 (2001)
Department of Virology
Institute of Medical Science, University of Tokyo
4-6-1, Shirokanedai, Minatoku, Tokyo 108-8639, Japan
Email: ysuzuki@ims.u-tokyo.ac.jp
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Contact: Shoemaker R/Public Soybean EST Project
Public Soybean EST Project
Washington University School of Medicine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HEP02980, mRNA
AU106358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: est@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AU106358.1 GI:13555879
                                                                                                      Contact: Yutaka Suzuki
                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (human)
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314 286 1810
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            primer. EcoRI adapters were ligated to the blunt-ended cDNA fragments followed by digestion with EcoRI and HindIII. The cDNA fragments were directionally cloned into the EcoRI-HindIII restriction site of the pT773-Pac vector. The ligated cDNA fragments were transformed into DH10B host cells. This library was constructed by Dr. Randy Shoemaker."

3 25 c 27 g 19 t
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/note="Vector: pT713Pac (Pharmacia); Site_1: EcoRI;
/note="Vector: pT713Pac (Pharmacia); Site_1: EcoRI;
Site_2: HindII; This library was constructed from mRNA
isolated from senescing leaf tissue of mature greenhouse
grown plants of the cultivar Williams. Complementary DNA
was synthesized from mRNA using a 3' anchored poly(dT)
was synthesized from mRNA using a 3' anchored poly(dT)
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/db_xref="taxon:3847"
/clone="GENOME SYSTEMS CLONE ID: Gm-c1041-777"
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                                                                                                                                                                                                                                                                                                                                               Primates;
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Pred. No. 6.1e+04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             bp mRNA linear EST 30-AUG-200 cDNA library Homo sapiens cDNA clone
                                                                                                                                                                                                                                                                                                                                                  Catarrhini; Hominidae;
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REFERENCE
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VERSION
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BZ287687
                                                                                                          BASE COUNT
ORIGIN
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Query Match
Best Local Similarity 85.7
12; Conservative
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   i (bases 1 to 72)
Alonso, J.M., Leisse, T.J., Barajas, P., Chen, H., Cheuk, R., C., Jeske, A., Karnes, M., Kim, C.J., Parker, H., Prednis, L., Zimmerman, J. and Ecker, J.R.
A Sequence-Indexed Library of Insertion Mutations in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Arabidopsis thaliana
Arabidopsis thaliana
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Eukaryota; Magnoliophyta; eudicotyledons; core eudicots; rosid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tel: 858 453 4100 x1752 Fax: 858 558 6379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Joseph R. Ecker
Salk Institute Genomic Analysis Laboratory (SIGnAL)
The Salk Institute for Biological Studies
10010 N. Torrey Pines Road, La Jolla, CA. 92037, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        survey sequence.
BZ287687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BZ287687 72 bp DNA linear GSS SALK 021065.27.75.x Arabidopsis thaliana TDNA insertion Arabidopsis thaliana genomic clone SALK_021065.27.75.x,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Email: ecker@salk.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Spermatophyta; Magnoliophyta; eudicotyledons; core eud; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
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                                                                                                                          /db_xref="taxon:3702"
/dlone="StALK 021055.27.75.x"
/clone="StALK 021055.27.75.x"
/clone="StALK 021055.27.75.x"
/clone="StALK 021065.27.75.x"
/clone="IPCR was performed on Arabidopsis thaliana lines each of which contains one or more TDNA insertion elements. The resultant foreach line was directly sequenced to determine the genomic sequence at the site of insertion. Details of the protocols used can be found at http://signal.salk.edu/tdna_protocols.html"
a 12 c 14 g 24 t
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. 20 c 12 g 15 t
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/clone="HEP02980"
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/mol_type="mRNA"
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                                                                                                                                                                                                                                                                                                                                             /mol_type="genomic D
/strain="Columbia 0"
                                                                                                                                                                                                                                                                                                                                                                                        organism="Arabidopsis thaliana"
                                                                                                                                                                                                                                                                                                                                                                                                                                     ocation/Qualifiers
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                                        67.5%;
85.7%;
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                    Score 10.8; DB
Pred. No. 7e+04;
0; Mismatches
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Pred. No. 6.1e+04;
0; Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                        DNA"
                                                             DB 29;
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University of Utah Ge
University of Utah
Rm. 308, Biomedical F
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Duval, B., Hamil, C., Islam, H., Longacre, S., Mahmoud, M., Meenen, E., Pedersen, T., Reilly, M., Rose, M., Rose, R., Stokes, R., Tingey, A., von Niederhausern, A. and Wright, D., Weiss, R. and Wright, D., Weiss, R. Mouse, whole genome scaffolding with paired end reads from 10kb Mouse, whole genome scaffolding with paired end reads from 10kb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AZ619815 80 bp DNA linear GSS 13-DEC-200100452D18F Mouse 10kb plasmid UUGCIM library Mus musculus genomic Clone UUGCIM0452D18 F, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Seq primer: CGTTGTAAAACGACGGCCAGT
Class: plasmid ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: ddunn@genetics.utah.edu
Insert Length: 1000 Std Erro
Plate: 0452 row: D column: 18
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Fax: 801 585 7177
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10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pWD42 (gi[4732114]gb[AF129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."
                                                                                                                                                                                                                                                                       was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptored DNA was purified and size-selected for a 9.5 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /lab_host="E. Coli strain XL10-Gold, T1-resistant, F-"/clome_lib="Mouse_10kb_plasmid_UUGC1M_library"
/note="Vector: PW042nv; burified genomic_DNA_from_M.
musculus_C57BL/6J (male) was obtained from the Jackson
                                                                                                                                                                                                                                                                                                                                                                                                                                         (http://www.jax.org/resources/documents/dnares/). The DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Laboratory Mouse DNA Resource
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'strain="C57BL/6J"
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Query Match Best Local Similarity

67.5%; 83.3%;

Score 10.8; DB 28; Pred. No. 7.3e+04;

Length 80;

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26 AGGCTAGCAACA 37

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12

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zuechtungsforschung, Carl-von-Linne-Weg 10, Koeln, 50829, Germany This sequence is recovered from the left border of the T-DNA. It indicates an insertion close to or within gene At3g26560. The sequences are generated at the MPI for Plant Breeding Research in the context of the GABI-Kat project. GABI-Kat is part of the German Plant Genomics program designated 'GABI'. Information on line availability can be found at:

http://www.mpiz-koeln.mpg.de/GABI-Kat/.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rosso,M., Strizhov,N., Li,Y., Reiss,B., Dekker,K. and Weisshaar,B. A new Arabidopsis thaliana T-DNA mutagenised population (GABI-Kat) for lanking sequence tag based reverse genetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 RGGCTAGCHACA 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (21-CCT-2002) Weisshaar B., Max-Planck-Institut fuer Zuechtungsforschung, Carl-von-Linne-Weg 10, Koeln, 50829, Germany
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and Weisshaar,B.
A pipeline for automated high-throughput generation of FSTs (flanking sequence tags) from Arabidopsis thaliana T-DNA
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Arabidopsis thaliana
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a 19 c
                                                                                                                                                            /note=TPCR was performed on DNA from Arabidopsis thaliana plants (T1) which were transformed with the T-DNA from vector pac161. The lines contain one or more T-DNA insertions. The DNA fragment(s) resulting from the PCR were directly sequenced to determine the genomic sequence flanking the insertion. Sequences displaying significant similarity to the A. thalaina nuclear genome sequence were processed for submission. T-DNA derived sequences were
                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Arabidopsis thaliana"
/mol_type="genomic DNA"
/strain="Columbia 0"
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                                                                                                                                                                                           74
BZ291056
BZ291056.1
GSS.
                                                               BZ291056 94 bp DNA linear GSS 24-OCT-2002 SALK 112368.45.85.x Arabidopsis thaliana TDNA insertion lines Arabidopsis thaliana genomic clone SALK_112368.45.85.x, genomic
                                                                                                                                                                                                                          1 RGGCTAGCHACA 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished
Contact: Marra M/Mouse BST Project
Contact: Marra M/Mouse BST Project
WashU-HHMM Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Lo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92 bp mRNA linear EST 10-SEP-1996 mb77g02.rl Soares mouse p3NMF19.5 Mus musculus cDNA clone IMAGE:335474 5', mRNA sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL ; contact the
                                                  survey sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                         GGGCTAGCCACA 85
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314 286 1810
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Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                             double-stranded cDNA was size selected, ligated to Eco RI adapters (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of a modified pTT3 vector (Pharmacia). Library went through one round of normalization to a Cot = 5. Library constructed by Bento Soares and M.Fatima Bonaldo. RNA was kindly provided by Dr. Minoru Ko (Mayne State University)."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Mus musculus"
/mol_type="mRNA"
/db_xref="taxon:10090"
/clone="IMAGE:335474"
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                  GI:24335637
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83.3%;
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Rodentia;
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Pred. No. 7.7e+04;
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Marra, M., Hillier, L., Allen, M., Bowles, M., Dietrich, N., Dubuque, T.,
Geisel, S., Kucaba, T., Lacy, M., Le, M., Martin, J., Morris, M.,
Schellenberg, K., Steptoe, M., Tan, F., Underwood, K., Moore, B.,
Theising, B., Wylie, T., Lennon, G., Soares, B., Wilson, R. and
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12; Conserv
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WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. L
                                                                              Unpublished Contact: Marra M/Mouse EST Project
                                                                                                                                  Waterston, R.
The WashU-HHMI Mouse EST Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA919502 95 bp mRNA linear EST 20-APR-19vz20g11.rl Stratagene mouse heart (#937316) Mus musculus cDNA clo
IMAGE:1316324 5' similar to TR:Q60961 Q60961 MEMBRANE TRANSPORTER
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C., Jeske,A., Karnes,M., Kim,C.J., Parker,H., Prednis,L
, Zimmerman,J. and Ecker,J.R.
A Sequence-Indexed Library of Insertion Mutations in the
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Arabidopsis thaliana
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Joseph R. Ecker
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/clone lib="Arabidopsis thaliana TDNA insertion lines"
/note="PCR was performed on Arabidopsis thaliana lines
each of which contains one or more TDNA insertion
elements. The resultant fragment for each line was
directly sequenced to determine the genomic sequence at
the site of insertion. Details of the protocols used can
be found at http://signal.salk.edu/tdna_protocols.html"
a 24 c 19 g 33 t
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/strain="Columbia 0"
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85.7%;
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This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
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Fax: 314 286 1810
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                                                                                                                                                                                    Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error:
Plate: 0501 row: D column: 21
Seq primer: CGTTGTAAAACGACGGCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Robert B. Weiss
University of Utah Genome
University of Utah
Rm. 308, Biomedical Polyme
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                                               Class: plasmid ends
High quality sequence stop: 32.
Location/Qualifiers
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/tissue type="heart"
/dev stage="13 day embryos"
/lab_host="SOIR (kanamycin resistant)"
/lab_host="SOIR (kanamycin resistant)"
/clone lib="Stratagene mouse heart (#937316)"
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Lee, S., Zhou, G., Bao, J., Shapiro, J., Xu, J., Sun, M., Lin, W., Zhang, R., Chen, J., Clark, T., Sun, M., Wang, J., Johnson, D., Tseng, C., Ya, H., Wang, J., Du, W., Wu, C.I., Zhang, X. and Wang, S.M.

Novel SAGE tags represent a significant number of novel genes in Drosophila genome
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Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
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Email: swangl@midway.uchicago.edu

Email: swangl@midway.uchicago.edu

This EST was detected from Drosophila melanogaster cDNA Library

With GLGI technique (Generation of Longer cDNA fragments from SAV

tags for Gene Identification, Proc. Natl. Acad. Sci. USA 97, 349,

tags for Gene Identification, Proc. Natl. Acad. Sci. usa 97, 349,

1009, A high-throughput GLGI procedure for converting a large

2000, A high-throughput GLGI procedure for converting a large

number of SAGE tag sequences into 3' ESTs, Genes, Chromosomes &

Cancers 33:252-261, 2002), which covers from the 3' end of cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                        University of Chicago Medical Center
5841 S. Maryland Ave., MC2115, Chicago, IL 60637, USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished
                                                                                                                                                                                                                                                                                                                                                Tel: 773-702-6788
Fax: 773-702-3002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Wang SM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTAGCCACAACTA 13
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/strain="C57BL/6J"
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AAV82953
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Best Local S
Matches 16
                                              Breaker RR,
                                                                29-APR-1997;
                                                                          29-APR-1998;
                                                                                   05-NOV-1998
                                                                                             WO9849346-A1
                                                                                                      Synthetic
                                                                                                               Enzyme; car
regulator;
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                                                                                                                                                                                                                                                                                                          Claim 1; Page
                                                                                                                                                                                                                               gene
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produced by picornaviruses, hepadnaviridae, (e.g. HBV, HCV), papitiomaviruses (e.g. HPV), gammaherpesviruse (e.g. EBV), papitiomaviruses (e.g. HPV), gammaherpesviruse (e.g. HBV), papitiomaviruses, leukemia viruses (e.g. HTLV-1 and -11), productiviruses, togaviruses, herpesviruses (including alphaherpesviruse and betaherpesviruses), cytomegaolviruses (CMV), influenza viruses viruses and retroviruses contributing to immunodeficiency diseases and syndromes (e.g. HiV-1 and -2), simian and feline immunodeficiency viruses and bovine leukemia viruses. They can also be used as regulators
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This sequence is used in a method which involves the production of catalytic DNA molecules which can be used for cleaving target nucleic acid molecules. Such DNA molecules used in pharmaceutical and medical products (e.g. for wound debridement, clot dissolution), as well as in household items (e.g. detergents, dental hygiene products, meat tenderisers'). Other suitable substrates include those comprising or
                                                    New catalytic DNA molecules - having activity in a substrate nucleic acid, nucleic acid sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New catalytic DNA molecules - having site-specific endonuclease activity in a substrate nucleic acid, used for cleaving target nucleic acid sequences
                        Claim 1; Page 96; 161pp; English
                                                                                                                                                                                                                                                                                                                                                                                                   Enzymatic DNA core motif region.
                                                                                                                                                                                                                                                                                                                                                                                                                                  05-MAR-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV82953 standard; DNA; 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 16 BP; 5 A; 4 C; 4 G; 1 T; 2 other;
                                                                                                                   WPI; 1999-034670/03.
                                                                                                                                                                            (SCRI ) SCRIPPS RES INST
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                                                                                                                                                                                                                                                                                                                                                        catalysis; clo
or; detergent;
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hygiene; meat tenderiser; ss.
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Pred. No.
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, used for cleaving target
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This sequence is used in a method which involves the production

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RESULT 3
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                                                                                                                                                                     The present invention relates to a method for identifying sites on a target RNA which are accessible to pairing by antisense DNA, ribozymes of DNAzymes. The present sequence is a DNAzyme catalytic core sequence. In the method of the present invention the target sequence is incubated with DNAzymes, antisense oligonucleotides or ribozymes (such as the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       lymphocryptoviruses, leukemia viruses (e.g. HTLV-1 and -11), flaviviruses, togaviruses, herpesviruses (including alphaherpesviruse flaviviruses, cottomegaolviruses (CMV), influenza viruses, viruses and retroviruses contributing to immunodeficiency diseases and syndromes (e.g. HiV-1 and -2), simian and feline immunodeficiency viruses and bovine leukemia viruses. They can also be used as regulators
                                                                                                                                                                                                                                                                                                                                                                                                                        Identifying sites on a target or in vitro-synthesized RNA accessible antisense, ribozyme, or DNAzyme binding comprises incubating hybridizing the target RNA with an antisense oligodeoxynucleotides,
                                                        present sequence). Any antisense oligonucleotide, ribozyme or DNAzym which is complementary to an accessible site in the target sequence hybridises to that site and the sequence is cleaved. The cleavage products can then be detected to identify the accessible binding sit
                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 7; 38pp; English.
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  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                       ribozymes or DNAzymes
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rossi J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-OCT-2000.
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15; Conserv
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  BP;
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  6 A;
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  4 G;
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Pred. No. 89;
1; Mismatches
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  2 T;
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  0 other
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                                                                                                                                                                                                                                                                   DNAzymes. The present sequence is a DNAzyme catalytic core sequence In the method of the present invention the target sequence is incuba with DNAzymes, antisense oligonucleotides or ribozymes (such as the
                                                                                                                                                                                                                                                                                                   The present invention relates to a method for identifying sites on a target RNA which are accessible to pairing by antisense DNA, ribozymes or
                                                                                                                                                                                                                                                                                                                                                             Identifying sites on a target or in vitro-synthesized RNA accessible to antisense, ribozyme, or DNAzyme binding comprises incubating hybridizing the target RNA with an antisense oligodeoxynucleotides, ribozymes or DNAzymes -
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                                                        ABA02749 standard;
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(first entry)

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RESULT 6
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Matches 15
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                                                                           WO200157206-A2
                                                                                                                                  Unidentified
                                                                                                                                                                                Human; checkpoint kinase-1; Chkl; antisense; RNA cleavage; cancer; ss.
                                                                                                                                                                                                                                                                    DNAzyme ribozyme motif SEQ ID NO: 3186.
                                                                                                                                                                                                                                                                                                                              09-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                  AAH97756;
                                                                                                                                                                                                                                                                                                                                                                                                                                         AAH97756 standard; DNA; 16
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3, Blatt L;
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Pred. No. 89
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                                                                                                                                                                                                                                 inflammatory arthropathy; central nervous system injury; cerebrovascular accident; CVA; Alzheimer's disease; multiple sclehentherapy-induced neuropathy; amyotrophic lateral sclerosis; Parkinson's disease; ataxia; Huntington's disease; Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative
                                                                                                                                                                                                                                                                                                             Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic; cerebroprotective; nootropic; neuroprotective; antiparkinsonian; muscular; CD20; neurite growth inhibitor gene; NOG0; hammerhead ribozyme DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia; B-cell lymphoma; non-Hodgkin's lymphoma; NHT; lymphocytic leukaemia; human immunodeficiency virus; HIV associated NHI; lymphotecytic leukaemia; human immunodeficiency virus; HIV associated NHI; santle-cell lymphoma; MCL; immunocytoma; INC; immune thrombocytopaenia; stroke; dementia;
                                            11-FEB-2000; 2000US-181797P.
28-FEB-2000; 2000US-185516P.
06-MAR-2000; 2000US-187128P.
                                                                                                           09-FEB-2001; 2001WO-US04273
                                                                                                                                                                                                                                                                                                                                                                                                                                             DNAzyme motif.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention provides nucleic acid molecules capable of downregulating the expression of the human checkpoint kinase-1 (Chkl) gene. These may be antisense or ribozyme sequences, and are useful in the treatment of diseases associated with conditions affected by Chkl levels, including cancer. The present sequence is an oligonucleotide described in the exemplification of the invention.
(RIBO-) RIBOZYME PHARM INC. (BLAT/) BLATT L.
                                                                                                                                          16-AUG-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 8;
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(FATT/) FATTAEY A R.
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93.8%;
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Pred. No. 89
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Human; chloride channel calcium activated 1; CLCA1; ss; antiasthmatic; antiinflammatory; chronic obstructive pulmonary disease; COPD; asthma; chronic bronchitis; cystic fibrosis; obstructive bowel syndrome; oxygen therapy; bronchodilator; corticosteroid; vaccination; mucokinet acetylcysteine.
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                                                                                                                                                                                                                                                                                             Human CLCA1 gene enzymatic nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                 02-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABK61076 standard; DNA; 16
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Pred. No. 89
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                                                       vaccination; mucokinetic;
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                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loc
Matches
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tumour angiogenesis; diabetic retinopathy; macular degeneration; neovascular glaucoma; myopic degeneration; arthritis; verruca vulga angiofibroma of tuberous sclerosis; port-wine stain; wound healing; Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; leukaemia; Osler-Weber-rendu syndrome, leukaemia; osteoporosis; DNAzyme; inozy
                                                                                Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic; ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic; vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis; vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (RIBO-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Enzymatic polynucleotide that down regulates expression of chloride channel calcium activated gene, useful for treating Chronic obstructive pulmonary disease (COPD), chronic bronchitis and asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Thompson J, Grupe A;
                                                                                                                                                           DNAzyme motif.
                                                                                                                                                                                                                                                                 ABK22719 standard; RNA; 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   enzymatic nucleic acid molecule
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SYNTEX USA LLC.
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nilarity 93.8%;
Conservative
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Pred. No. 8:
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RESULT 10
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                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel polymucleotide which down regulates expression of Ets-related gene, useful for treating cancer, diabetic retinopathy, macular degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            conditions selected from cancer, lymphoma, Ewing's sarcoma, melar tumour angiogenesis, diabetic retinopathy, macular degeneration, neovascular glaucoma, myopic degeneration, arthritis, psortasis, vulgaris; angiofibroma of tuberous sclerosis, port-wine stains, synthesis, angiofibroma of tuberous sclerosis, port-wine stains, synthesis, angiofibroma of tuberous sclerosis, port-wine stains, synthesis, and the statement of tuberous sclerosis, port-wine stains, synthesis, and the statement of tuberous sclerosis, port-wine stains, synthesis, and the statement of tuberous sclerosis, port-wine stains, synthesis, and tuberous sclerosis, port-wine stains, synthesis, and tuberous sclerosis.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Figure 5; 149pp; English
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                    Necrosis factor kappa B (NFKB) modulating DNAzyme motif.
                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 16
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Pred. No. 89;
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Enzymatic nucleic acid; nuclear factor kappa B; NFKB; inozyme; zinzyme; G;cleaver; amberzyme; cancer; REL-A activity; breast cancer; lung cancer; prostate cancer; colorectal cancer; brain cancer; cosphageal cancer; stomach cancer; bladder cancer; melanoma; cervical cancer; head and neck cancer; ovarian cancer; melanoma; lymphoma; glioma; multidrug resistant cancer; REL-A-specific inhibitor; lymphoma; glioma; multidrug resistant cancer; REL-A-specific inhibitor; cyclophosphamide; doxorubin; fluorouracil carboplatin; edatrexate; spemcitabine; radiation therapy; inflammatory disease; asthma; diabetes; rheumatoid arthritis; restenosis; Crohn's disease; obesity; ischaemia; gene therapy; autoimmune disease; lupus; multiple sclerosis; sepsis; transplant/graft rejection; reperfusion injury; glomerulomephritis; allergic airway inflammation; inflammatory bowel disease; infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cancer and is useful for down-regulating REL-A activity in a cell, for treating a patient having a condition associated with the level of REL-A. (1) is useful for cleaving RNA comprising a sequence of REL-A gene, in the presence of a divalent cation, especially Mg'2+. The enzymatic and antisense nucleic acid molecules are useful for treating breast, lung, prostate, colorectal, brain, oesophageal, stomach, bladder, pancreatic, cervical, head and neck, ovarian cancer, melanoma, lymphoma, glioma or multidrug resistant cancer. The method involves use of other drug therapies such as monoclonal antibodies, REL-A specific inhibitors or hear there are a second antibodies and a second antibodies antibodies antibodies antibodi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention describes an enzymatic nucleic acid molecule (I) which down regulates expression of a sequence encoding a subunit of nuclear factor kappa B (NFKB), where (I) is an inozyme, zinzyme, G-cleaver or amberzyme configuration. The enzymatic nucleic acid molecule is adapted to treat
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                                                                                                                                                                                                                                                                                                                                                                                                                                    chemotherapy including paclitaxel, docetaxel, cisplatin, methotrexate, cyclophosphamide, doxorubin, fluorouracil carboplatin, edatrexate, cyclophosphamide, doxorubin, fluorouracil carboplatin, edatrexate, gemcitabine or radiation therapy. The enzymatic and antisense nucleic acid molecules are also useful for treating inflammatory disease such as rheumatoid arthritis, restenosis, asthma, Crohn's disease, diabetes, restenosis, asthma, crohn's disease, diabetes.
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18-MAY-1994;
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rheumatoid arthritis, restenosis, asthma, Crohn's disease, diabetes, obesity, autoimmune disease, lupus, multiple sclerosis, transplant/graft rejection, gene therapy applications, ischaemia/reperfusion injury (central nervous system (CNS) and myocardial), glomerulonephritis, sepsis, allergic airway inflammation, inflammatory bowel disease or infection. This sequence represents a motif of an enzymatic nucleic acid used to modulate the function of a necrosis factor kappa B sub-unit.
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DRAPER K G.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              94US-0291932.
92US-0987132.
94US-0245466.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  96US-0777916
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Best Matches Query Match

Local Similarity hes 15; Conserv

Conservative

92.5**%**; 93.8**%**; 4 C; 4

Score 14.8; DB Pred. No. 89; 1; Mismatches

25; <u>,,</u>

Length Indels

16; 0

Gaps

0

Sequence 16

BP;

5 A;

G; 2 T; 1

other;

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RGGCTAGCHACAACGA 16

Carried a section

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                                                                                                                                                The present sequence is an example of a DNAzyme, an enzymatic conclear acid (ENA) that does not require the presence of a 2'-OH CC group for its activity. DNAzymes can be used as the ENA moiety in convel ENA peptide conjugates (I) of the invention that facilitate convel ENA peptide conjugates (I) of the invention that facilitate convel ENA peptide part of the conjugate is typically a fusogenic peptide such as a peptide given in ABP72395. The conjugates can be used to treat a cancer patient, where the cancer is breast, lung, colorectal, brain, oesophageal, stomach, bladder, pancreas, cervix, concert and neck or ovary cancer, melanoma, lymphoma, glioma or control of the virus is HIV, hepatitis B virus, herpes simplex virus, cytomegalovirus, Rous sarcoma virus, herpes simplex virus, Ebola covirus, foot and mouth disease virus, west nile virus (all colimed). (I) are useful for introducing nucleotides, proteins cond/or non-nucleosidic small molecules into a cell and to detect the presence of a target molecules into a cell and to detect consense, cell or cell lysate. They are useful as diagnostic tools consense, cell or cell lysate. They are useful as diagnostic tools consense, cell or cell diff and mutations within diseased cells or to detect the presence of a disease-related RNA in a cell.
                                                             Matches
                                                                          Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New transporter compounds useful for delivering molecules into
biological system such as cells, and for treating cancer and v
infertions -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNAzyme; enzymatic nucleic acid; enzyme; transporter; delivery; cytostatic; virucide; gene therapy; ss.
                                                                                                                          Sequence 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Beigelman L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNAzyme motif.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABZ58432;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABZ58432 standard; DNA; 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (RIBO-) RIBOZYME PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-JUL-2001; 2001US-306995P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-JUL-2002; 2002WO-US23324.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO2003008628-A2
                                                             15;
                                                                             Similarity
                            RGGCTAGCHACAACGA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fig 4; 88pp; English.
                                                             Conservative
                                                                                                                          BP; 5 A; 4 C; 4 G; 2 T; 1 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Azhayev A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                          92.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Azhayeva
                                                                            Score 14.8;
Pred. No. 89;
                                                             Mismatches
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                                                                                           BG
                                                                                           25;
                                                           0;
                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cancer and viral
                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  grug
                                                                                           16;
                                                           0
                                                           Gaps
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RESULT 13
ABZ66527
ID ABZ66
XX
AC ABZ66
XX
AC ABZ66
XX
DT 21-MA
XX
DE Human
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ABZ66525
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                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                             The invention relates to a novel short interfering RNA (siRNA) nucleic acid molecule or an enzymatic nucleic acid molecule, that modulates expression of a nucleic acid molecule encoding HERZ, K-Ras, H-Ras, N-F human immunodeficiency virus (HIV) or a component of HIV. The nucleic acid molecule of the invention has cytostatic, anti-HIV, and anti-rheumatic activity. The nucleic acid molecules are useful for reducing HERZ, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are also useful for treating breast, ovarian, colorectal, lung, prostate, bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences shown in ABZ66217 - ABZ66583 - ABZ65532 - ABZ65519, ABZ65539, ABZ65529, ABZ66529, ABZ66528 represent human ribozymes of
                             21-MAR-2003
                                                                                                                                                                                                                                                                       Sequence 27 BP; 6 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel short interfering RNA and enzymatic nucleic acid useful for treating cancer, modulates the expression of a nucleic acid encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-MAY-2001; 2001US-294140P.
06-JUN-2001; 2001US-296249P.
10-SEP-2001; 2001US-318471P.
                                                                                    ABZ66527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 3; Page 153; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-140484/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (RIBO-) RIBOZYME PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29-MAY-2002; 2002WO-US16840
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    anti-rheumatic; cancer; AIDS; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    enzymatic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human HER2 synthetic DNAzyme
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABZ66525;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABZ66525 standard; RNA;
                                                                                                                                                                                                                  14;
                                                                                                                                                                          1 RGGCTAGCHACAACGA 16 : | | | | | | | | | | |
                                                                                                                                                         σ
                                                                                                                                                                                                                            Similarity
                                                                                    standard;
                                                                                                                                                        AGGCTAGCTACAACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nucleic acid;
                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                            (first entry)
                                                                                    RNA;
                                                                                                                                                                                                                         92.5%;
87.5%;
                                                                                                                                                                                                                                                                     6 C; 10 G; 2 T; 3 U; 0 other;
                                                                                    27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 H-Ras; N-Ras; HIV; cytostatic; anti-HIV,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27
                                                                                                                                                         21
                                                                                                                                                                                                                2
                                                                                                                                                                                                                               Score 14.8;
Pred. No. 92
                                                                                                                                                                                                                             Pred.
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                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                92;
                                                                                                                                                                                                                                                                                                                  represent human ribozymes of the
                                                                                                                                                                                                                                              DB 25;
                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                           RNA (siRNA) nucleic
                                                                                                                                                                                                                                              27;
                                                                                                                                                                                                                                                                                                                                                                                                                                  H-Ras, N-Ras,
                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                Gaps
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Human HER2 synthetic DNAzyme

0;

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RESULT 14
AAZ34361
ID AAZ34
XX AAZ34
XX AAZ34
XX L14-DE
DT 14-DE
XX Nucle
XX Catall
KW Catall
KW mutat
KW probe
XX Synth
XX W0995
PN W0995
XX
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                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to a novel short interfering RNA (siRNA) nucleic acid molecule or an enzymatic nucleic acid molecule, that modulates expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ra human immunodeficiency virus (HIV) or a component of HIV. The nucleic acid molecule of the invention has cytostatic, anti-HIV, and anti-rheumatic activity. The nucleic acid molecules are useful for reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are also useful for treating breast, ovarian, colorectal, lung, prostate, bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences shown in ABZ66217 - ABZ6658 represent human ribozymes of terminates.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-MAY-2001;
06-JUN-2001;
10-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras; enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV; anti-rheumatic; cancer; AIDS; ss.
              07-OCT-1999
                                         WO9950452-A1
                                                                     Synthetic.
                                                                                               probe; cancer;
                                                                                                               mutation;
                                                                                                                         Catalytic nucleic acid-based diagnostic method; determination; AIDS;
                                                                                                                                                    Nucleic acid-based diagnostic exemplification oligonucleotide
                                                                                                                                                                                                           AAZ34361;
                                                                                                                                                                                                                                       AAZ34361 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 3; Page 153; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel short interfering RNA and enzymatic nucleic acid useful for treating cancer, modulates the expression of a nucleic acid encoding HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-140484/13.
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                                                                                                                                                                                 14-DEC-1999
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                                                                                                                                                                                                                                                                                                                                                                14;
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                                                                                                                                                                                                                                                                                                                                RGGCTAGCHACAACGA 16
                                                                                                                                                                                                                                                                                                                                                                                                                       27
                                                                                                                                                                                                                                                                                                         AGGCTAGCTACAACGA 21
                                                                                                             ribozyme; target;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; 2001US-294140P.
; 2001US-296249P.
; 2001US-318471P.
                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                       BP; 11
                                                                                                                                                                                (first
                                                                                                human immune deficiency virus; cystic fibrosis; HIV; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                       A; 8 C; 6
                                                                                                                                                                                                                                       DNA;
                                                                                                                                                                                entry)
                                                                                                                                                                                                                                                                                                                                                                             92.5%;
                                                                                                                                                                                                                                        29
                                                                                                                                                                                                                                        ВP
                                                                                                                                                                                                                                                                                                                                                                2
                                                                                                             cleavage; amplification;
                                                                                                                                                                                                                                                                                                                                                                             Score 14.8;
Pred. No. 92;
                                                                                                                                                                                                                                                                                                                                                                                                                       G; 2 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                            DΒ
                                                                                                                                                                                                                                                                                                                                                                                          25;
                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                          Length
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                                                                                                                                                                                                                                                                                                                                                                                            27;
                                                                                                                                                                                                                                                                                                                                                                  ç
                                                                                                                                                                                                                                                                                                                                                                  Gaps
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RESULT 15
AAZ34363
ID AAZ34
XX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention describes a method for determining whether a cc subject is afflicted with a disorder characterised by the presence of cc sknown nucleic acid. The method comprises: (i) amplifying, in an cc isolated sample from the subject, the nucleic acid segment that, in an cc affected individual contains (A), (ii) treating the amplicons with a cc catalytic nucleic acid (1) that specifically recognizes and cleaves a cc target sequence present in either the mutated or wild-type segments, but not in both; and (iii) detecting any cleavage caused by (I). Step cc (ii) may be performed concurrently with (i). The method is specifically used to diagnose cancer (especially), acquired immune deficiency crestriction fragment length polymorphism (RFLP) analysis); such sites occur more frequently than restriction enzyme sites, and mismatched primers can be used to induce cleavage sites for (I). The method is perfocially contrainly more firetable than RFLP and does not require my enzymes or toxic compounds. AAZ34339 to AAZ34450 represent oligonucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                             Catalytic nucleic acid-based diagnostic method; determination; AIDS; mutation; ribozyme; target; cleavage; amplification; PCR primer; probe; cancer; human immune deficiency virus; cystic fibrosis; HIV; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Detecting diseases associated with a known mutation by amplification and cleavage with catalytic nucleic acids, particularly for cancer, human immune deficiency virus and cystic fibrosis
                                                                                                                                                                                                                                                                           Nucleic acid-based diagnostic exemplification oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                    AAZ34363 standard; DNA; 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 29 BP; 10 A; 5 C; 10 G; 3 T; 1 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 20; 57pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1999-591332/50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             27-MAR-1998;
                                                         27-MAR-1998;
                                                                                                                    07-OCT-1999.
                                                                                                                                                   WO9950452-A1.
                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                       14-DEC-1999
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                                                                                     16-MAR-1999;
                         (JOHJ ) JOHNSON & JOHNSON RES PTY LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 RGGCTAGCHACAACGA 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                       (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0079651.
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                                                         98US-0079651.
                                                                                       99WO-IB00848.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cairns MJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      92.5%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                              23
                                                                                                                                                                                                                                                                                                                                                                     BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 14.8;
Pred. No. 9:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. 93;
?; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         93;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                              #25.
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Todd AV,

Fuery CJ,

Cairns MJ

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                subject is afflicted with a disorder characterised by the presence of CC a known nucleic acid. The method comprises: (i) amplifying, in an CC catcalytic nucleic acid. The method comprises: (i) amplifying, in an CC catcalytic nucleic acid (I) that specifically recognizes and cleaves a CC catcalytic nucleic acid (I) that specifically recognizes and cleaves a CC target sequence present in either the mutated or wild-type segments, but not in both; and (iii) detecting any cleavage caused by (I). Step (ii) may be performed concurrently with (i). The method is specifically used to diagnose cancer (especially), acquired immune deficiency used to diagnose cancer (especially), acquired immune deficiency syndrome and cystic fibrosis. (I) recognises as few as two by to create a cleavage site (contrast at least 4 by required by enzymes used in restriction fragment length polymorphism (RFLP) analysis); such sites occur more frequently than restriction enzyme sites, and mismatched potentially more flaxible than RFLP and does not require any enzymes or toxic compounds. AAZ34339 to AAZ34450 represent oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Detecting diseases associated with a known mutation by amplification and cleavage with catalytic nucleic acids, particularly for cancer, human immune deficiency virus and cystic fibrosis -
                                Real-time quantitative amplification of nucleic acid, useful detecting bacterial pathogens, uses primer and labeled probe combine to form a ribozyme -
                                                                                                                                                                                                                             26-MAR-1999;
                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                           Hammerhead ribozyme DNA motif #23
                                                                                                                                                                                                                                                                                                                                                                                                                                           13-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAC82623;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAC82623 standard; DNA; 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 29 BP; 7 A; 10 C; 5 G; 7 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1999-591332/50
Disclosure; Fig 13; 39pp; German
                                                                                                WPI; 2000-603196/58.
                                                                                                                              Krupp
                                                                                                                                                                (ARTU-) ARTUS
                                                                                                                                                                                               26-MAR-1999;
                                                                                                                                                                                                                                                               28-SEP-2000.
                                                                                                                                                                                                                                                                                               DE19915141-A1
                                                                                                                                                                                                                                                                                                                                                            fluorescent signal; cleavage;
                                                                                                                                                                                                                                                                                                                                                                           Detection; amplification; pathogenic bacteria; hammerhead ribozyme;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention describes a method for determining whether a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 20; 57pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           φ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 RGGCTAGCHACAACGA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGCTAGCTACAACGA 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                GES
                                                                                                                                                                                                99DE-1015141.
                                                                                                                                                                                                                               99DE-1015141
                                                                                                                                                                MOLEKULARBIOLOGISCHE DIAGNOSTI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 14.8; DB Pred. No. 93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
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RESULT 17
ABZ66526
ID ABZ66
XX
AC ABZ66
XX
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras; enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV; anti-rheumatic; cancer; AIDS; ss.
                                                                  Novel short interfering RNA and enzymatic nucleic acid useful for treating cancer, modulates the expression of a nucleic acid encoding HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences
                                                                                                                                                                                                                                                   29-MAY-2001; 2001US-294140P.
06-JUN-2001; 2001US-296249P.
10-SEP-2001; 2001US-318471P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human HER2 synthetic DNAzyme
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-MAR-2003
                              Claim 3; Page 153; 185pp; English.
                                                                                                                                           WPI; 2003-140484/13.
                                                                                                                                                                                                                                                                                                                           29-MAY-2002; 2002WO-US16840.
                                                                                                                                                                                                                                                                                                                                                               05-DEC-2002.
                                                                                                                                                                                                                                                                                                                                                                                                   WO200297114-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABZ66526 standard; RNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 29 BP; 5 A; 4 C; 4 G; 2 T; 14 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  consisting mainly of 2'-deoxyribonucleotides.
                                                                                                                                                                                                                 (RIBO-) RIBOZYME PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
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Pred. No. 93
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The invention relates to a novel short interfering RNA (siRNA) nucleic

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RESULT 18
ABZ66528
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Best Local S
Matches 14
acid molecule or an enzymatic nucleic acid molecule, that modulates expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras, human immunodeficiency virus (HIV) or a component of HIV. The nucleic acid molecule of the invention has cytostatic, anti-HIV, and anti-rheumatic activity. The nucleic acid molecules are useful for reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are also useful for treating breast, ovarian, colorectal, lung, prostate, bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences shown in ABEG6217 - ABEG6434, ABEG5532 - ABEG5519, ABEG6525 - ABEG6529, ABEG6586 - ABEG6568 represent human ribozymes of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel short interfering RNA and enzymatic nucleic acid useful for treating cancer, modulates the expression of a nucleic acid encod HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 3; Page 153; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-140484/13
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06-JUN-2001; 2001US-296249P.
10-SEP-2001; 2001US-318471P.
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enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human HER2 synthetic DNAzyme #4.
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                                                                                                                                                                                                                                                                                                                                                                                                           invention
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AIDS; ss.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
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밁 S

맑 S

Matches Best Query Match

14;

Conservative

22

Pred. No. 93; 2; Mismatches Score 14.8; Pred. No. 9

0

0

Gaps

0

B

25;

Length Indels

29;

RGGCTAGCHACAACGA 16 AGGCTAGCTACAACGA

22

Local

Similarity

92.5%;

Sequence

29

B₽;

7 A; 4 C; 11 G; 2 T; 5 U; 0 other;

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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                               29-MAY-2001;
06-JUN-2001;
10-SEP-2001;
                                             The invention relates to a novel short interfering RNA (siRNA) nucleic acid molecule or an enzymatic nucleic acid molecule, that modulates expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ra human immunodeficiency virus (HIV) or a component of HIV. The nucleic acid molecule of the invention has cytostatic, anti-HIV, and anti-rheumatic activity. The nucleic acid molecules are useful for reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are also useful for treating breast, ovarian, colorectal, lung, prostate, bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences shown in ABZ62217 - ABZ65433, ABZ65532 - ABZ65519, and ABZ65519.
                                                                                                                                                                                                                 Novel short interfering RNA and enzymatic nucleic acid useful for treating cancer, modulates the expression of a nucleic acid encoding HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras; enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV; anti-rheumatic; cancer; AIDS; ss.
                                                                                                                                                                                         Claim 3; Page
                                                                                                                                                                                                                                                                                                                                                                                                                            05-DEC-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                      The sequences
ABZ66525 - ABI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABZ66529;
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                                      ABZ66529,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       synthetic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP; 9
                                                                                                                                                                                                                                                                                                                                                            2001US-294140P.
2001US-296249P.
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                                     shown in ABZ6221
Z66529, ABZ66586
                                                                                                                                                                                         153; 185pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; 5 C; 11 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92.5%;
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                                                                                                                                                                                         English.
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Pred. No. 9:
                                      ABZ66658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 T; 2 U;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93;
                                      represent
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                                      human
                                      ribozymes of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29;
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                                                                                                                                        N-Ras,
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RESULT 21
ABZ66650
ID ABZ66
XX
AC ABZ66
XX
AC ABZ66
XX
DT 21-MA
XX
DE Human
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ABZ6649
ID ABZ666X
XX ABZ66
CC ABZ66
C
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Best Local S
Matches 14
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06-JUN-2001;
10-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                acid molecule or an enzymatic nucleic acid molecule, that modulates expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras, human immunodeficiency virus (HIV) or a component of HIV. The nucleic acid molecule of the invention has cytostatic, anti-HIV, and anti-rheumatic activity. The nucleic acid molecules are useful for reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are also useful for treating breast, ovarian, colorectal, lung, prostate, bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences shown in ABZ662217 - ABZ66533 - ABZ65532 - ABZ66529, ABZ66528 - ABZ66529, ABZ66529, ABZ66528 - ABZ66529, ABZ66529, ABZ66529 represent human ribozymes of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
anti-rheumatic; cancer; AIDS; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel short interfering RNA and enzymatic nucleic acid useful for treating cancer, modulates the expression of a nucleic acid encoding HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences
                          Human HIV enzymatic nucleic acid
                                                                                  21-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 122; Page 159; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-140484/13.
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                                                                                                                                           ABZ66650
                                                                                                                                                                                             ABZ66650 standard; RNA; 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mcswiggen J;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         invention relates to a novel short interfering RNA (siRNA) nucleic
                                                                                                                                                                                                                                                                                                                                              7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                     RGGCTAGCHACAACGA 16
:||||||:|||||||
AGGCTAGCTACAACGA 22
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; 2001US-296249P.
; 2001US-318471P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                  (first entry)
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87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5 G;
                                                                                                                                                                                                   BP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 14.8;
Pred. No. 93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 T; 4 U;
                          #2
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RESULT 22
ABZ6651
ID ABZ66
XX ABZ66
XX ABZ66
XX ABZ66
XX Human
XX Human
XX Human
XX Human
XX Human
XX Homo
XX Homo
XX Homo
XX ADZ Homo
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Best Local :
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06-JUN-2001;
10-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                acid molecule or an enzymatic nucleic acid molecule, that modulates expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras, human immunodeficiency virus (HIV) or a component of HIV. The nucleic acid molecule of the invention has cytostatic, anti-HIV, and anti-rheumatic activity. The nucleic acid molecules are useful for reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are also useful for treating breast, ovarian, colorectal, lung, prostate, bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences shown in ABZ66217 - ABZ64543, ABZ65532 - ABZ65519, ABZ66529, ABZ66529, ABZ66586 - ABZ66588 represent human ribozymes of the
                                                                                                                                                                                                                                                                Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
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enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
anti-rheumatic; cancer; AIDS; ss.
                                                          05-DEC-2002
                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                       anti-rheumatic;
                                                                                                                                                                                                                                                                                                                                                      Human HIV enzymatic nucleic acid #3.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29 BP; 7 A; 9 C; 5 G; 2 T; 6 U; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; 2001US-294140P.
; 2001US-296249P.
; 2001US-318471P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                          cancer; AIDS; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         92.5%;
87.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29
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Pred. No. 93;
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29-MAY-2002; 2002WO-US16840.

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RESULT 23
ABZ66652
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
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06-JUN-2001;
10-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel short interfering RNA and enzymatic nucleic acid useful for treating cancer, modulates the expression of a nucleic acid encoding HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  acid molecule or an enzymatic nucleic acid molecule, that modulates expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-R human immunodeficiency virus (HIV) or a component of HIV. The nucleic acid molecule of the invention has cytostatic, anti-HIV, and acid molecule of the invention has cytostatic, anti-HIV, and acid molecules are useful for reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are also useful for treating breast, ovarian, colorectal, lung, prostate, bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences shown in ABZ66217 - ABZ64543, ABZ65532 - ABZ66529, ABZ66529, ABZ66586 - ABZ66658 represent human ribozymes of ABZ66525 - ABZ66529, ABZ66586 - ABZ66658 represent human ribozymes of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-140484/13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mcswiggen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 122; Page 159; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (RIBO-) RIBOZYME PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 29
                                                                                                                                                                                                                                                                                                       Human HIV enzymatic nucleic acid #4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         invention.
                                                                                                                                                                                                                                                      anti-rheumatic;
                                                                                                                                                                                                                                                                 Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras; enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti
                                                                                                                                                                                                                                                                                                                                                                                        ABZ66652 standard; RNA;
                                                                                                                                                                                                                            Homo
                                                                                                                                                                                                                                                                                                                                    21-MAR-2003
                                                                                                                                               29-MAY-2002; 2002WO-US16840
                                                                                                                                                                          05-DEC-2002.
                                    Mcswiggen J;
                                                                                           06-JUN-2001;
10-SEP-2001;
                                                                                                                    29-MAY-2001;
                                                                  (RIBO-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   invention relates to a novel short interfering RNA (siRNA) nucleic
               2003-140484/13
                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                           7
                                                                  RIBOZYME PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RGGCTAGCHACAACGA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGCTAGCTACAACGA 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; 2001US-294140P.
; 2001US-296249P.
; 2001US-318471P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP; 6 A;
                                                                                           ; 2001US-294140P.
; 2001US-296249P.
; 2001US-318471P.
                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                       cancer; AIDS; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9 C; 6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 14.8;
Pred. No. 93;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB
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                                                                                                                                                                                                                                                                           anti-HIV;
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RESULT 24
ABZ66653
ID ABZ66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to a novel short interfering RNA (siRNA) nucleic acid molecule or an enzymatic nucleic acid molecule, that modulates expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-F human immunodeficiency virus (HIV) or a component of HIV. The nucleic acid molecule of the invention has cytostatic, anti-HIV, and anti-rheumatic activity. The nucleic acid molecules are useful for reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are also useful for treating breast, ovarian, colorectal, lung, acids are also useful for treating breast, ovarian, colorectal, prostate, bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences shown in ABZ66217 - ABZ66534, ABZ65532 - ABZ665519, ABZ66525 - ABZ66529, ABZ66526 - ABZ66586 - ABZ66588 represent human ribozymes of invertice.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 122; Page 159; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       treating cand
HER2, K-Ras,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                   29-MAY-2001;
06-JUN-2001;
10-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                           Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras; enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; antianti-rheumatic; cancer; AIDS; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Human HIV enzymatic nucleic acid #5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABZ66653;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABZ66653 standard;
                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                      29-MAY-2002; 2002WO-US16840.
                                                                                                                                                                                                                                                                                                                 05-DEC-2002
                                                                                                                                                                                                                                                                                                                                            WO200297114-A2
                                                                                                                                                                                 Mcswiggen
                                                                                                                                                                                                          (RIBO-) RIBOZYME PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      short interfering RNA and enzymatic nucleic acid useful for ing cancer, modulates the expression of a nucleic acid encoding K-Ras, H-Ras, N-Ras, and human deficiency virus sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 RGGCTAGCHACAACGA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGCTAGCTACAACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BP; 8 A; 6 C; 8 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                    ; 2001US-294140P.
; 2001US-296249P.
; 2001US-318471P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              92.5%;
87.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 14.8;
Pred. No. 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 T; 5 U; 0 other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93;
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                                                                                                                                                                                                                                                                                                                                                                                                                 anti-HIV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29;
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Novel short interfering RNA and enzymatic nucleic acid useful for treating cancer, modulates the expression of a nucleic acid encoding HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences

WPI; 2003-140484/13

acid molecule or an enzymatic nucleic acid molecule, that modulates expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-K human immunodeficiency virus (HIV) or a component of HIV. The nucleic acid molecule of the invention has cytostatic, anti-HIV, and

The invention relates to a novel short

interfering

RNA (siRNA) nucleic e, that modulates

N-Ras

Claim 122;

Page 159; 185pp; English.

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RESULT 25
RABX13988
ID ABX13988
ID ABX14988
ID ABX14988
ID ABX16
ID A
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Best Local S
Matches 14
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                                                                               The invention discloses a new catalytic DNA or RNA molecule that specifically cleaves, or inhibits expression of, Hairless Protein mRN which comprises a catalytic domain that cleaves mRNA at a defined consensus sequence and binding domains contiguous with the 5' and 3' of the catalytic domain. Lack of expression of the hairless gene due of the catalytic domain. Lack of expression of the hairless gene due
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 29
                                                                                                                                                                                                                                                                                                                               New catalytic nucleic acid molecule that specifically cleaves Hairless Protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hair loss; atrichia; hair growth; hirsutism; catalytic nucleic acid; ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozyme; catalytic core; cleavage site; pharmaceutical; hair production;
                               inherited mutations leads to the complete loss of hair, known atrichia. Abundant hair growth, hirsutism, can be improved by
                                                                                                                                                                                                                                                     Claim 3; Page 34; 65pp; English
                                                                                                                                                                                                                                                                                                           to catagen phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-093020/08.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (UYCO ) UNIV COLUMBIA NEW YORK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Catalytic DNA; catalytic RNA; hairless protein; ss;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-FEB-2003
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  genes
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers 8..22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Catalytic domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ű
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Pred. No. 9
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     one way to
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     transient
                               inhibiting
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RESULT 26
ABX13989
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Best Local
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                                                           New catalytic nucleic acid molecule that specifically cleaves Hairless Protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozyme; catalytic core; cleavage site; pharmaceutical; hair production; hair follicle; anagen phase; catagen phase; hair removal product;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene suppression is through the use of catalytic nucleic acid technology, including ribozymes and DNAzymes. Ribozymes are RNA structures which have
                                                                                                                               WPI; 2003-093020/08
                                                                                                                                                                                                                            13-APR-2001; 2001US-283618P.
                                                                                                                                                                                                                                                            12-APR-2002; 2002WO-US11683.
                                                                                                                                                                                                                                                                                                                            WO200283891-A2
                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               DECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Catalytic DNA; catalytic RNA; hairless protein; ss;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Deoxy-ribozyme, cleaving hairless protein mRNA after nucleotide 1597.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     human hairless protein mRNA immediately after nucleotide 1594.
                                                                                                                                                                                             (UYCO ) UNIV COLUMBIA NEW YORK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            depilatory.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hair loss;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABX13989 standard;
                                             catagen phase
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           atrichia; hair growth; hirsutism; catalytic nucleic acid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP; 7 A;
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                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers 8..22
                                                                                                                                                                                                                                                                                                                                                             /note= "Catalytic domain"
                                                                                                                                                                                                                                                                                                                                                                          /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     92.5%;
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Pred. No. 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      G; 4 T; 0 other;
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Claim 3; Page 34; 65pp; English

Hairless Protein

mRNA

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CC consensus sequence and binding domains contiguous with the 5 and 3 ends CC of the catalytic domain. Lack of expression of the hairless gene due to CC inherited mutations leads to the complete loss of hair, known as cCC atrichia. Abundant hair growth, hirsutism, can be improved by inhibiting CC atrichia. Abundant hair growth, and one way to get targeted, transient CC gene suppression is through the use of catalytic nucleic acid technology, including ribozymes and DNAzymes. Ribozymes are RNA structures which have CC a self-catalytic enzymatic function and sequence specific RNA binding CC ability. Small DNA oligonuclectides that have a similar structure to the hammerhead ribozyme, called deoxy-ribozymes or DNAzymes, having a CC catalytic core and two sequence specific arms. The deoxy-ribozymes have CC more lenient consensus cleavage site requirements and are less likely to degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids CC are useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting CC the transition of a hair follicle from the anagen phase to the catagen catalyce of the sequence presented is useful as a model for testing CC hase. A non-human transgenic mammal is useful as a model for testing the catalyce of the sequence presented is the deoxy-ribozyme that cleaves the composition hairless protein man hairless protein man a timediately after myllocides that cleaves the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
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WPI; 2003-093020/08
                                                                    Christiano AM
                                                                                                                                                                                                         13-APR-2001; 2001US-283618P
                                                                                                                                                                                                                                                                                                                                                 24-OCT-2002.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 hair loss; atrichia; hair growth; hirsutism; catalytic nucleic acid; ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozyme; catalytic core; cleavage site; pharmaceutical; hair production;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Catalytic DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Deoxy-ribozyme, cleaving hairless protein mRNA after nucleotide 1641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-FEB-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention discloses a new catalytic DNA or RNA molecule that specifically cleaves, or inhibits expression of, Hairless Protein which comprises a catalytic domain that cleaves mRNA at a defined
                                                                                                                                    (UYCO ) UNIV COLUMBIA NEW YORK
                                                                                                                                                                                                                                                                         12-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 follicle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   hairless protein mRNA immediately after nucleotide 1597.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGCTAGCTACAACGA 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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                                                                                                                                                                                                                                                                             2002WO-US11683
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 anagen phase; catagen phase; hair removal product;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      catalytic RNA; hairless protein; ss;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers 8..22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Catalytic domain"
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Pred. No. 93
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CC specifically cleaves, or inhibits expression of, Hairless Protein mRNA CC which comprises a catalytic domain that cleaves mRNA at a defined CC consensus sequence and binding domains contiguous with the 5' and 3' ends CC of the catalytic domain. Lack of expression of the hairless gene due to of the catalytic domain. Lack of expression of the hairless gene due to catalytic domain thair growth, hirsutism, can be improved by inhibiting CC the genes promoting hair growth, and one way to get targeted, transient CC including ribozymes and DNAzymes. Ribozymes are RNA structures which have a self-catalytic enzymatic function and sequence specific RNA binding CC ability. Small DNA oligonucleotides that have a similar structure to the hammerhead ribozyme, called deoxy-ribozymes or DNAzymes, having a CC catalytic core and two sequence specific arms. The deoxy-ribozymes have compensus cleavage site requirements and are less likely to degrade, in vivo, that hammerhead ribozymes. The deoxy-ribozymes have compensus cleavage site requirements and are less likely to degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids are useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting the transition of a hair follicle from the anagen phase to the catagen chair removal products which function by inhibiting hairless protein mRNA immediately after nucleotide 1641.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New catalytic nucleic acid molecule that specifically cleaves Hairless Protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
Sequence
                                         expression. The sequence presented is the devi-
human hairless protein mRNA immediately after
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention discloses a new catalytic DNA or RNA molecule that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    to catagen phase
  29 BP; 7 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            65pp; English.
  11 C; 7
  G; 4 T; 0 other;
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RESULT 28
ABX13991
ID ABX13
В
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                                                                                                                                                                                                                                                                                                                                                                   Matches
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                                                                                                                                                "" 1088; atrichia; hair growth; hirsutism; catalytic nucleic ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-r catalytic core; cleavage site; pharmaceutical; hair production; hair follicle; anagen phase; catagen phase.
                                                                             misc_feature
                                                                                                            Synthetic
                                                                                                                                                                                Catalytic DNA; catalytic RNA; hairless protein; ss;
hair loss; atrichia; hair growth; hirsutism; cataly
                                                                                                                                                                                                              Deoxy-ribozyme,
                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                   25-FEB-2003
                                                                                                                                                                                                                                                                          ABX13991 standard; DNA;
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                                                                                                                                                                                                                                                                                                                                                                             Similarity
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                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                   (first entry)
                                                                          Location/Qualifiers
                                                                                                                                                                                                              cleaving hairless protein mRNA after
                                                                  /*tag=
                                                          /note= "Catalytic domain"
                                                                                                                                                                                                                                                                                                                                                                           92.5%;
87.5%;
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                                                                                                                                                                                                                                                                                                                                                                   <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                      Score 14.8;
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                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                              93:
                                                                                                                                                                                                                                                                                                                                                                                       DB 25;
                                                                                                                                                                                catalytic nucleic acid;
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                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                               nucleotide 1698.
                                                                                                                                                                       deoxy-ribozyme;
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12-APR-2002; 2002WO-US11683.

24-OCT-2002.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CC consensus sequence and binding domains contiguous with the 5' and 3' ends CC of the catalytic domain. Lack of expression of the hairless gene due to CC inherited mutations leads to the complete loss of hair, known as CC atrichia. Abundant hair growth, hirsuitism, can be improved by inhibiting CC the genes promoting hair growth, and one way to get targeted, transient CC gene suppression is through the use of catalytic nucleic acid technology, CC including ribozymes and DNAzymes. Ribozymes are RNA structures which have a self-catalytic enzymatic function and sequence specific RNA binding CC ability. Small DNA oligonucleotides that have a similar structure to the CC hammerhead ribozyme, called deoxy-ribozymes or DNAzymes, having a CC catalytic core and two sequence specific arms. The deoxy-ribozymes have CC degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids are useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting CC phase. A non-human transgenic mammal is useful as a model for testing CC phase. A non-human transgenic mammal is useful as a model for testing CC phase and products which function by inhibiting hairless protein CC hair removal products which function by inhibiting hairless protein CC hair removal products which function by inhibiting hairless protein CC hair removal products which function by inhibiting hairless protein mRNA immediately after nucleotide 1698.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Key
misc_feature
                                                                                                                                              nair loss; atrichia; hair growth; hirsutism; catalytic nucleic acid; ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozyme; catalytic core; cleavage site; pharmaceutical; hair production; hair follicle; anagen phase; catagen phase.
                                                                    Homo sapiens.
Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New catalytic nucleic acid molecule that specifically cleaves Hairless Protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
                                                                                                                                                                                                            Catalytic DNA; catalytic RNA; hairless protein; hair loss; atrichia; hair growth; hirsutism; cat
                                                                                                                                                                                                                                                                       Deoxy-ribozyme,
                                                                                                                                                                                                                                                                                                                 25-FEB-2003
                                                                                                                                                                                                                                                                                                                                                        ABX13992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 3; Page 34; 65pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Protein mRNA, useful for inhibiting cell, or for inhibiting transition
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                                                                                                                                                                                                                                                                       cleaving hairless protein mRNA after nucleotide 1732
            Location/Qualifiers 8..22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; 7 C; 10 G; 5 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              92.5%;
87.5%;
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Pred. No. 93;
2; Mismatches
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RESULT 30
ABX13993
ID ABX13
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Best Local
Catalytic DNA; catalytic RNA; hairless protein; ss; hair loss; atrichia; hair growth; hirsutism; catalytic nucleic acid; ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozy catalytic core; cleavage site; pharmaceutical; hair production;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New catalytic nucleic acid molecule that specifically cleaves Hairless Protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                       Deoxy-ribozyme,
                                                                                                                                               25-FEB-2003
                                                                                                                                                                                                                            ABX13993 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention discloses a new catalytic DNA or RNA molecule that
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                                                                                                     cleaving hairless protein mRNA after nucleotide
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87.5%;
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Pred. No. 93
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                                                                                                                                                                                                                                                                                 RESULT 31
                                                                                                                                                                                                            Query Match
Best Local S
Matches 14
                                                                                                                                                                                                                                                                                                             a self-catalytic function and sequence specific RNA binding ability. Small DNA oligonucleotides that have a similar structure to the hammerhead ribozyme, called deoxy-ribozymes or DNAsymes, having a catalytic core and two sequence specific arms. The deoxy-ribozymes have more lenient consensus cleavage site requirements and are less likely to degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids are useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting phase. A non-human transgenic mammal is useful as a model for testing phase. A non-human transgenic mammal is useful as a model for testing hair removal products which function by inhibiting hairless protein expression. The sequence presented is the deoxy-ribozyme that cleaves the human hairless protein mRNA immediately after nucleotide 1750.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention discloses a new catalytic DNA or RNA molecule that specifically cleaves, or inhibits expression of, Hairless Protein mRNA which comprises a catalytic domain that cleaves mRNA at a defined consensus sequence and binding domains contiguous with the 5' and 3' ends of the catalytic domain. Lack of expression of the hairless gene due to inherited mutations leads to the complete loss of hair, known as atrichia. Abundant hair growth, hirsuitism, can be improved by inhibiting the genes promoting hair growth, and one way to get targeted, transient gene suppression is through the use of catalytic nucleic acid technology, including ribozymes and DNAzymes. Ribozymes are RNA structures which have
              ABX13994;
                                                ABX13994 standard; DNA; 29
                                                                                                                                                                                                                                                                                 Sequence 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 3; Page 34; 65pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New catalytic nucleic acid molecule that specifically cleaves Hairless Protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
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Synthetic.
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                                                                                                                                                                         RGGCTAGCHACAACGA 16
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                                                                                                                                                                                                              Conservative
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Score 14.8; I Pred. No. 93; 2; Mismatches

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CC specifically cleaves, or inhibits expression of, Hairless Protein mRNA CC which comprises a catalytic domain that cleaves mRNA at a defined CC consensus sequence and binding domains contiguous with the 5' and 3' ends CC of the catalytic domain. Lack of expression of the hairless gene due to CC inherited mutations leads to the complete loss of hair, known as CC atrichia. Abundant hair growth, hirsuism, can be improved by inhibiting CC gene suppression is through the use of catalytic nucleic acid technology, including ribozymes and DNAzymes. Ribzymes are RNA structures which have a self-catalytic enzymatic function and sequence specific RNA binding CC ability. Small DNA oligonucleotides that have a similar structure to the hammerhead ribozyme, called deoxy-ribozymes or DNAzymes, having a CC catalytic core and two sequence specific arms. The deoxy-ribozymes have CC degrade, in vivo, that hammerhead ribozymes or DNAzymes, having a CC degrade, in vivo, that hammerhead ribozymes The catalytic nucleic acids are useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting the transition of a hair follicle from the anagen phase to the catagen CC phase. A non-human transgenic mammal is useful as a model for testing CC phase. A non-human transgenic mammal is useful as a model for testing CC phase and products which function by inhibiting hairless protein cc expression. The sequence presented is the deoxy-ribozyme that cleaves the human hairless protein mRNA immediately after nucleotide 1801.
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Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention discloses a new catalytic DNA or RNA molecule that
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catalytic core and two sequence specific arms. The deoxy-ribozymes have more lenient consensus cleavage site requirements and are less likely to degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids are useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting the transition of a hair follicle from the anagen phase to the catagen phase. A non-human transgenic mammal is useful as a model for testing hair removal products which function by inhibiting hairless protein expression. The sequence presented is the deoxy-ribozyme that cleaves the
                                                                                                                                                                                                                              specifically cleaves, or inhibits expression of, Hairless Protein mRNA which comprises a catalytic domain that cleaves mRNA at a defined consensus sequence and binding domains contiguous with the 5' and 3' ends of the catalytic domain. Lack of expression of the hairless gene due to inherited mutations leads to the complete loss of hair, known as atrichia. Abundant hair growth, hirsutism, can be improved by inhibiting the genes promoting hair growth, and one way to get targeted, transient gene suppression is through the use of catalytic nucleic acid technology, including ribozymes and DNAzymes, have a self-catalytic enzymatic function and sequence specific RNA binding ability. Small DNA oligonucleotides that have a similar structure to the hammerhead ribozyme, called deoxy-ribozymes or DNAzymes, having a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nair loss; atrichia; hair growth; hirsutism; catalytic nucleic acid; ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozyme; catalytic core; cleavage site; pharmaceutical; hair production; hair follicle; anagen phase: catagon where hair
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                                     protein mRNA immediately after nucleotide
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RESULT 33
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Best Local S
Matches 14
consensus sequence and binding domains contiguous with the 5' and 3' ends of the catalytic domain. Lack of expression of the hairless gene due to inherited mutations leads to the complete loss of hair, known as atrichia. Abundant hair growth, hirsutism, can be improved by inhibiting the genes promoting hair growth, and one way to get targeted, transient gene suppression is through the use of catalytic nucleic acid technology, including ribozymes and DNAzymes. Ribozymes are RNA structures which have self-catalytic enzymatic function and sequence specific RNA binding ability. Small DNA oligonucleotides that have a similar structure to the hammerhead ribozyme, called deoxy-ribozymes or DNAzymes, having a catalytic core and two sequence specific arms. The deoxy-ribozymes have more lenient consensus cleavage site requirements and are less likely to degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids are useful in pharmaceutical compositions for inhibiting hair production
                                                                                                                                                                                                                                            The invention discloses a new catalytic DNA or RNA molecule that specifically cleaves, or inhibits expression of, Hairless Protei which comprises a catalytic domain that cleaves mRNA at a define
                                                                                                                                                                                                                                                                                                                                                              Protein mRNA, useful for inhibiting cell, or for inhibiting transition
                                                                                                                                                                                                                                                                                                                                                                  New catalytic nucleic acid molecule that specifically cleaves Hairless Protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-rib catalytic core; cleavage site; pharmaceutical; hair production; hair follicle; anagen phase; catagen phase; hair removal product;
                                                                                                                                                                                                                                                                                                                 Claim 3; Page 35; 65pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-093020/08.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Catalytic DNA; catalytic RNA; hairless protein; ss; hair loss; atrichia; hair growth; hirsutism; catalytic nucleic
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                                                                                                                                                                                                                                                                                                                                                 to catagen phase
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92.5%;
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"Catalytic domain"
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Pred. No. 93;
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                                                                                                                                                                                                                                              ess Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                deoxy-ribozyme;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29;
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Sequence

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BP; 6 A; 7 C; 13 G; 3 T; 0 other;

DB 25

Length

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by a hair-producing cell, for inhibiting hair growth and for inhibiting the transition of a hair follicle from the anagen phase to the catager phase. A non-human transgenic mammal is useful as a model for testing hair removal products which function by inhibiting hairless protein expression. The sequence presented is the deoxy-ribozyme that cleaves human hairless protein mRNA immediately after nucleotide 2028.

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Best Local
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The invention discloses a new catalytic DNA or RNA molecule that specifically cleaves, or inhibits expression of, Hairless Protein mRNA which comprises a catalytic domain that cleaves mRNA at defined consensus sequence and binding domains contiguous with the 5 and 3 end of the catalytic domain. Lack of expression of the hairless gene due to inherited mutations leads to the complete loss of hair, known as atrichia. Abundant hair growth, hirsuitism, can be improved by inhibiting the genes promoting hair growth, and one way to get targeted, transient gene suppression is through the use of catalytic nucleic acid technology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Catalytic DNA; catalytic RNA; hairless protein; ss; hair loss; atrichia; hair growth; hirsutism; catalytic nucleic acid; ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozyme; catalytic core; cleavage site; pharmaceutical; hair production;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Deoxy-ribozyme, cleaving hairless protein mRNA after nucleotide 2033.
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                                                                                                                                                                                 New catalytic nucleic acid molecule that specifically cleaves Hairless protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
                                                                                                                                                                                                                                         WPI;
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                                                                                                                                           Claim 3;
                                                                                                                                                                                                                                                                     Christiano
                                                                                                                                                                                                                                                                                               (UYCO ) UNIV COLUMBIA NEW YORK
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                                                                                                                                                                     catagen phase
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14; Conserv
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8..22
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Pred. No. 9
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removal produc
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       red by inhibiting geted, transient acid technology,
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New catalytic nucleic acid molecule that specifically cleaves Hairless Protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase

/ a hair-producing from anagen phase

Christiano

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2003-093020/08.

The invention discloses a new catalytic DNA

or RNA

molecule

Claim 3;

Page

35;

65pp;

English.

catagen phase

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RESULT 35
ABX13998
ID ABX13
XX Catal
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nair 1088; atrichia; hair growth; hisutism; catalytic nucleic acid; ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozyme catalytic core; cleavage site; pharmaceutical; hair production; hair follicle; anagen phase; catagen phase.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cleaving hairless protein mRNA after nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
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"Catalytic domain"
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Pred. No. 93;
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consensus sequence and binding domains contiguous with the 5' and 3' ends of the catalytic domain. Lack of expression of the hairless gene due to

specifically cleaves, or inhibits expression of, Hairless Protein mRNA which comprises a catalytic domain that cleaves mRNA at a defined

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RESULT 36
ABX13999
ID ABX13
XX ABX13
XX ABX13
XX Deoxy
XX Catal
KW Catal
KW riboz
KW riboz
KW catal
KW riboz
Synth
XX depil
XX Homo
OS Synth
XX Homo
OS Synth
XX Homo
OS Synth
XX 10200
PT misc.
PT misc.
PT 12-AI
XX 13-AI
XX (UYCC
XX 24-OC
XX 13-AI
XX (UYCC
XX 15-AI
XX WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CC inherited mutations leads to the complete loss of hair, known as carrichia. Abundant hair growth, hirsutism, can be improved by inhibiting the genes promoting hair growth, hirsutism, can be improved by inhibiting the genes promoting hair growth, and one way to get targeted, transient concluding ribozymes and DNAxymes. Ribozymes are RNA structures which have a self-catalytic enzymatic function and sequence specific RNA binding consisting the sequence specific RNA binding consisting the sequence specific arms. The deoxy-ribozymes consensus cleavage site requirements and are less likely to degrade, in vivo, that hammerhead ribozymes. The deoxy-ribozymes have consensus cleavage site requirements and are less likely to degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids are useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting the transition of a hair follicle from the anagen phase to the catagen consensus products which function by inhibiting hair growth and for testing consensus products which function by inhibiting hairses protein expression. The sequence presented is the deoxy-ribozyme that cleaves the human hairless protein mRNA immediately after nucleotide 2047.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 14
                                                                                                                                                                                                                                                                                                                                                                                                                          ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozyme; catalytic core; cleavage site; pharmaceutical; hair production; hair follicle; anagen phase; catagen phase; hair removal product;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Catalytic DNA; catalytic RNA; hairless protein; ss; hair loss; atrichia; hair growth; hirsutism; catalytic nucleic acid;
                                                                                                                                                         12-APR-2002; 2002WO-US11683
                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Deoxy-ribozyme,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABX13999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 29
                WPI; 2003-093020/08
                                                   Christiano
                                                                                                                      13-APR-2001; 2001US-283618P
                                                                                                                                                                                                                               WO200283891-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABX13999 standard; DNA; 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14;
                                                                                      UNIV COLUMBIA NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RGGCTAGCHACAACGA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGCTAGCTACAACGA 22
                                                   ¥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cleaving hairless protein mRNA after nucleotide 2083
                                                                                                                                                                                                                                                                                                  Location/Qualifiers 8..22
                                                                                                                                                                                                                                                             /*tag= a
/note= "Catalytic domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 14.8;
Pred. No. 9:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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New catalytic nucleic acid molecule that specifically cleaves Hairless protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
                                                                                                                                                                              to catagen phase
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Page 35; 65pp; English.

which comprises a catalytic domain that cleaves mRNA at a defined CC consensus sequence and binding domains contiguous with the 5' and 3' ends CC inherited mutations leads to the complete loss of hair less gene due to CC inherited mutations leads to the complete loss of hair, known as CC atrichia. Abundant hair growth, hirsutism, can be improved by inhibiting CC the genes promoting hair growth, and one way to get targeted, transient CC gene suppression is through the use of catalytic nucleic acid technology, CC including ribozymes and DNAzymes. Ribozymes are RNA structures which have CC aself-catalytic enzymatic function and sequence specific RNA binding CC ability. Small DNA oligonucleotides that have a similar structure to the hammerhead ribozyme, called deoxy-ribozymes or DNAzymes, having a CC catalytic core and two sequence specific arms. The deoxy-ribozymes have more lenient consensus cleavage site requirements and are less likely to degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids CC are useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting the transition of a hair follicle from the anagen phase to the catagen CC hair removal products which function by inhibiting hairless protein CC expression. The sequence presented is the deoxy-ribozyme that cleaves the CC human hairless protein mRNA immediately after nucleofide one The invention discloses a new catalytic DNA or RNA molecule that specifically cleaves, or inhibits expression of, Hairless Protei which comprises a catalytic domain that cleaves mRNA at a define Sequence 29 human hairless protein mRNA immediately after BP; 9 A; 7 C; 9 G; 4 T; 0 other; nucleotide Protein

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문
            Ś
                           Matches
                              Query Match
Best Local Similarity
             1
                           14;
7
             RGGCTAGCHACAACGA 16
GGGCTAGCTACAACGA 22
                           Conservative
                                 92.5%;
                           2
                                 Score 14.8;
Pred. No. 9:
                           Mismatches
                                   93;
                                        В
                                        25;
                           0,
                           Indels
                                       Length
                           0
                           Gaps
                           0
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RESULT 37
ABX14001
ID ABX144
XX ABX14
XX ABX14
XX Deoxy
XX Catal
XW hair
XW riboz
XW riboz
XW riboz
XW depil
XX Homo
OS Synth
XX York
XX Homo
OS Synth
XX York
XX YORX
XX YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-FEB-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
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Deoxy-ribozyme, cleaving hairless protein mRNA after nucleotide 2380.

Catalytic DNA; catalytic RNA; hairless protein; 88;
hair 1088; atrichia; hair growth; hitsutism; catalytic nucleic acid;
ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozyme;
catalytic core; cleavage site; pharmaceutical; hair production; catalytic core; cleavage site; pnarmaceuricai; "air processioned; hair follicle; anagen phase; catagen phase; hair removal product; Synthetic Homo sapiens

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misc_feature
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24-OCT-2002.
                          WO200283891-A2
                                                                            8..22
                                                                                        Location/Qualifiers
                                                   note=
                                                 "Catalytic domain"
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12-APR-2002; 2002WO-US11683

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RESULT 38
ABX14002
       FT FT XXX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CC consensus sequence and binding domains contiquous with the 5' and 3' ends CC inherited mutations leads to the complete loss of hair, known as CC atrichia. Abundant hair growth, hirsutism, can be improved by inhibiting the genes promoting hair growth, and one way to get targeted, transient CC gene suppression is through the use of catalytic nucleic acid technology, including ribozymes and DNAzymes. Ribozymes are RNA structures which have a self-catalytic enzymatic function and sequence specific RNA binding CC ability. Small DNA oligonucleotides that have a similar structure to the hammerhead ribozyme, called deoxy-ribozymes are RNA structure to the catalytic core and two sequence specific arms. The deoxy-ribozymes have CC catalytic core and two sequence specific arms. The deoxy-ribozymes have CC degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids are useful in pharmaceutical compositions for inhibiting hair growth and for inhibiting the transition of a hair follicle from the anagen phase to the catagen CC the transition of a hair follicle from the anagen phase to the catagen CC hair removal products which function by inhibiting hairless protein CC human hairless protein mRNA immediately after nucleotide 2380.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                  misc_feature
                                                                        Synthetic
                                                                                                                                                        hair loss; atrichia; hair growth; hirsutism; catalytic nucleic acid; ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozyme; catalytic core; cleavage site; pharmaceutical; hair production;
                                                                                                                                                                                                               Catalytic DNA; catalytic RNA; hairless protein;
                                                                                                                                                                                                                                                    Deoxy-ribozyme,
                                                                                                                                                                                                                                                                                         25-FEB-2003
                                                                                                                                                                                                                                                                                                                                                              ABX14002 standard; DNA; 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention discloses a new catalytic DNA or RNA molecule that specifically cleaves, or inhibits expression of, Hairless Protein which comprises a catalytic domain that cleaves mRNA at a defined
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 3; Page 35; 65pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New catalytic nucleic acid molecule that specifically cleaves Hairless Protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13-APR-2001; 2001US-283618P
                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                to catagen phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (UYCO ) UNIV COLUMBIA NEW YORK
                                                                                                                                           follicle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 RGGCTAGCHACAACGA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP; 6 A;
                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                            anagen
Location/Qualifiers
8..22
/*tag= a
                                                                                                                                                                                                                                                 cleaving hairless protein mRNA after nucleotide 2395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         92.5%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10 C; 8 G; 5 T; 0 other;
                                                                                                                                            phase; catagen phase; hair removal
                                                                                                                                                                                                                                                                                                                                                                                                                                                   22
                                                                                                                                                                                                                                                                                                                                                              ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ب
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 14.8;
Pred. No. 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                               88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 29;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mRNA
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The invention discloses a new catalytic DNA or RNA molecule that CC specifically cleaves, or inhibits expression of, Hairless Protein mRNA CC which comprises a catalytic domain that cleaves mRNA at a defined consensus sequence and binding domains contiguous with the 5' and 3' ends CC inherited mutations leads to the complete loss of hair, known as CC inherited mutations leads to the complete loss of hair, known as CC including ribozymes in through the use of catalytic nucleic acid technology, CC including ribozymes and DNAzymes. Ribozymes are RNA structures which have a self-catalytic enzymatic function and sequence specific RNA binding CC ability. Small DNA oligonucleotides that have a similar structure to the hammarhead ribozyme, called deoxy-ribozymes or DNAzymes, having a CC catalytic core and two sequence specific arms. The deoxy-ribozymes have catalytic core and two sequence specific arms. The deoxy-ribozymes have core lenient consensus cleavage site requirements and are less likely to degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids are useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting the transition of a hair follicle from the anagen phase to the catagen CC phase. A non-human transgenic mammal is useful as a model for testing CC hair removal products which function by inhibiting hairless protein CC human hairless protein mRNA immediately after nucleotide 2395.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New catalytic nucleic acid molecule that specifically cleaves Hairless protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 3; Page 35; 65pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                to catagen phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-093020/08
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  29
BP; 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "Catalytic domain"
Þ,
9 C; 8
  G; 3 T; 0 other;
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Best Loc
Matches
                                              Query Match
                                        Local
7
               1 RGGCTAGCHACAACGA 16
                               14;
                                       Similarity
GGGCTAGCTACAACGA
                               Conservative
                                      92.5%;
87.5%;
22
                               <u>ب</u>
                                       Score 14.8;
Pred. No. 9:
                               Mismatches
                                                DB
                                               25;
                               0;
                                               Length
                               Indels
                               0
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밁 S

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RESULT 39
AAA14525/c
ID AAA145
XX
AC AAA145
XX
DT 08-AUG
XX
Oligon
XX
COligon
XX
Revers
KW Revers
KW invert
KW antise
XX
OS Synthe
                                                                                                              AAA14525 standard; DNA;
                                                                                                               30
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Oligonucleotide 5'-polyNM-gaglink-(Pleio)-DNase-1023-B/P

08-AUG-2000

(first entry)

antisense sequence; Reverse transcriptase; RNase H; stem-loop structure; inverted tandem repeat; vector; inhibitory nucleic ac aptamer; gene expression; ss acid; genetic element;

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RESULT 40
AAZ87
XX AAZ87
XX AAZ87
AC AAZ87
XX 09-MA
DT 09-MA
XX WINDO
CONTROL

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CC (BSCDNA) in eukaryotic cells. They use a DNA cassette that produces CC sscDNA in vivo. The cassette contains the Moloney murine leukemia virus Creverse transcriptase/RNase H, a bacterial restriction endonuclease CC gene, and a sequence of interest which produces a RNA template from CC which the reverse transcriptase synthesises cDNA of a specified sequence. CC The ssDNA is then modified to remove all flanking vector sequences by CC taking advantage of the stem-loop structure of the cDNA, which forms as CC a result of the inclusion of a inverted tandem repeat that allows the SscDNA to fold back on itself, forming a double stranded DNA stem, in CC the sequence of interest. The double-stranded stem contains one or more for delivery to a cell. The vectors are is useful for producing a ssDNA concleic acid molecule which is an antisense sequence or aptamer, an mRNA contains and target cell are useful for antisense sequence or aptamer, an mRNA contains and the teroduplex molecule. Inhibitory nucleic acid molecules to a target cell are useful for aleviating pathological conditions by regulating gene expression. The present oligonucleotide was used to concleic a vector for use in the course of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
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                                                                                                                        Ribozyme; hammerhead; RNAase degradation; catalytic; PKCalpha; VEGF; protein kinase C alpha; tumour necrosis factor alpha; TNFalpha; cancer; vascular epithelial growth factor; gene expression; malignant glioma; cell proliferation; cytostatic; human; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-SEP-1999;
04-OCT-1999;
                                                                                                                                                                                                                                                                                              Human short protein kinase C (PKC)alpha DNA ribozyme
                                                                                                                                                                                                                                                                                                                                                                09-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conrad
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                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                  AAZ87648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAZ87648 standard; DNA; 30 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The specification describes methods for producing single-stranded cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 45; 77pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2000-317974/27
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                       The invention provides novel modified ribozymes that have 3 or more pyrimidine nucleotides (PMN) in the ribozyme modified at the 2'-position, where the PMNs are modified to 2'-amino PMNs and the ribozymes exhibit improved stability to RNAase degradation and exhibits 85% or more catalytic activity of the unmodified ribozymes. The ribozymes of the invention are selected from rat and human protein kinase C (PKC) alpha
                                                                                                                                         Sequence
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                                                                                                                                                                           present sequence represents a human short PKCalpha DNA ribozyme.
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Krupp,G.
Patent: DE 19915141-A 4 28-SEP-2000;
PATUS GES FUER MOLEKULARBIOLOG (DE)
Location/Qualifiers
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Patent: WO 0159103-A 9268 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt,
McSwiggen, James (US); Chowrira, Bharat M.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Blatt,L., Mcswiggen,J. and Chowrira,B. Method and reagent for the modulation
                      Fattaey, A.R., Jarvis, T., Mcswiggen, J., Booher, R.N. and Holman, P. Method and reagent for the inhibition of checkpoint kinase-1 (ch
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/mol_type="genomic DNA,"
/db_xref="taxon:32630"
/note="Kuenstliche DNA-Sequenz"
/note="Kuenstliche DNA-Sequenz"
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9268 from Patent WO0159103.
WO 0157206-A 2991 09-AUG-2001;
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
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Pred. No. 3.1e+02;
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                                                          Usman, N., Mcswiggen, J.A., Zinnen, S., Chowrira, B. and Blatt, L. Nucleic acid sensor molecules Patent: WO 0166721-A 21 13-SEP-2001, RIBOZYME PHARMACEUTICALS, INC. (US)
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Sequence 21 from Patent WO0166721.
AX282449
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Method and reagent for the inhibition of grid patent: WO 0162911-A 2304 30-AUG-2001; RIBOZYME PHARMACEUTICALS, INC. (US); GLAXO GROUP Location/Qualifiers
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                                                                                                                                 artificial sequences.
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/organism="synthetic construct"
/mol_type="genomic DNA"
/db_xref="taxon:32630"
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Pred. No. 3.1e+02;
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SOURCE
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AX583609
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KEYWORDS
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BASE COUNT
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Best Local Similarity
Matches 15; Conserv
                                                                                                                                                TITLE
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Patent: WO 0188124-A 5346 22-NOV-2001;
RIBOZYME PHARMACEUTICALS, INC. (US) ; GLAXO GROUP LIMITED (GB)
Location/Qualifiers
                                                                                                RIBOZYME PHARMACEUTICALS, INC. Thompson, James (US)
                                                                                                                      Method and reagent for the inhibition channel-1 (clca-1)
Patent: WO 0211674-A 5447 14-FEB-2002;
                                                                                                                                                           Thompson, J., Mcswiggen, J., Mckenzie, T., and Grupe, A.
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Sequence 5447 from Patent
AX583609
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           /note="Enzymatic Nucleic Acid"
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                                   /mol_type="genomic DNA"
/db_xref="taxon:32630"
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/db_xref="taxon:32630"
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AR201840
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Sequence
AR201810
                                                                                                                                                                1 (bases 1 to 29)
Todd, A.V., Fuery, C.J. and Cairns, M.J.
Catalytic nucleic acid-based diagnostic methods
Patent: US 6361941-A 25 26-MAR-2002;
Location/Qualifiers
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AR201808
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Todd, A.V., Fuery, C.J. and Cairns, M.J.
Catalytic nucleic acid-based diagnostic
Patent: US 6361941-A 23 26-MAR-2002;
Location/Qualifiers
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Altering gene expression with ssdna produced in vivo Patent: WO 0125419-A 3 12-APR-2001; Cytogenix, Inc. (US)
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Patent: WO 9963066-A 7 09-DEC-1999;
DZIEGLEWSKA HANNA EVA (GB); SIOUD M
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                                      Conrad, C.A. and Chen, Y.
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/mol type="genomic DNA"
/db_xref="taxon:32630"
/note="PKC alpha ribozyme"
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 Method and
Patent: WO
                          Ellis,J.H.
                                       Jarvis,T.,
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/db_xref="taxon:32630"
/note="Synthetic oligonucleotide"
/note 8 c 8 g 9 t
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9 c 6 g 7 t 1 others
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/mal_type="genomic DNA"
/mal_type="genomic DNA"
/db xref="taxon:32630"
/noTe="Enzymatic Nucleic Acid"
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                                    von Carlowitz, I., Mcswiggen, J.A., Hamblin, P.A.
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/mol_type="genomic DNA"
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/mol_type="genomic DNA"
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/mol_type="genomic DNA"
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/mol_type="genomic DNA"
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AR201827
AR201827.1
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Todd, A.V., Fuery, C.J. and Cairns, M.J.
Zymogenic nucleic acid detection methods
Patent: US 6140055-A 5 31-OCT-2000;
Location/Qualifiers
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Todd,A.V., Fuery,C.J. and Cairns,M.J.
Catalytic nucleic acid-based diagnostic
Patent: US 6361941-A 42 26-MAR-2002;
Location/Qualifiers
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Todd,A.V., Fuery,C.J. and Cairns,M.J.
Catalytic nucleic acid-based diagnostic methods
Patent: US 6361941,A 45.26-MAR-2002;
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Todd, A.V., Fuery, C.J. and Cairns, M.J.
Catalytic nucleic acid-based diagnostic
Patent: US 6361941 A 48 26-MAR-2002;
                                                                                                                                                                       1 (bases 1 to 31)
Todd, A. V., Euery, C.J. and Cairns, M.J.
Catalytic nucleic acid-based diagnostic
Patent: US 6361941-A 51 26-MAR-2002;
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AR201836
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9 c 5 g
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6 c 11 g
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Pred. No. 3.1e+02;
2; Mismatches 0;
                                                                             Score 14.8; DB 6;
Pred. No. 3.1e+02;
2; Mismatches 0;
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RESULT 24
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Method and reagent for the modulation and dia
nogo gene expression
Patent: WO 0159103-A 5988 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt,
McSwiggen, James (US); Chowrira, Bharat M.
Location/Qualifiers
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Location/Qualifiers
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Todd,A.V., Fuery,C.J. and Cairns,M.J.
Zymogenic nucleic acid detection methods,
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/mol type="genomic DNA"
/db_xref="taxon:32630"
/note="Nucleic Acid"
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Method and reagent for the modulation and diagnosis of nogo gene expression Patent: WO 0159103-A 5989 16-AUG-2001;
RIBOZYME PHARWACEUTICALS, INC. (US); Blatt, Lawrence (RIBOZYME PHARWACEUTICALS, INC. (US); Blatt, Lawrence (US); Chowrira, Bharat M. (US)
Location/Qualifiers
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Method and reagent for the modulation and diagnosis of cd20
nogo gene expression
patent: WO 0159103-A 5990 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt, Lawrence (US);
McSwiggen, James (US); Chowrira, Bharat M. (US)
Location/Qualifiers
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 Blatt,L., Mcswiggen,J. Method and reagent for
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/mol type="genomic DNA"
/db xref="taxon:32630"
/note="Nucleic Acid"
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RESULT 28
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Patent: WO 0159103-A 5991 16-AUG-2001;
RIBOZYME PHARWACEUTICALS, INC. (US); Blatt,
McSwiggen, James (US); Chowrira, Bharat M.
Location/Qualifiers
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Similarity 87.5%;
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Patent: WO 0159103-A 5993 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US) ;
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/db_xref="caxon:22630"
/note="Nucleic Acid"
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2; Mismatches 0;
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            nogo gene expression
Patent: WO 0159103-A 5995 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US) ; Blatt, Law
McSwiggen, James (US) ; Chowrira, Bharat M. (US)
Location/Qualifiers
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Patent: WO 0159103-A 5994 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt, Law
McSwiggen, James (US); Chowrira, Bharat M. (US)
Location/Qualifiers
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                                                                           Blatt,L., Mcswiggen,J. and Chowrira,B.M. Method and reagent for the modulation and diagnosis of
                                                                                                                               synthetic construct
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/db_xref="taxon:32630"
/note="Nucleic Acid"
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/mol type="genomic DNA"
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Pred. No. 3.1e+02;
2; Mismatches 0;
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Pred. No. 3.1e+02;
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Sequence 5996 from Patent WO0159103
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                                                   RIBOZYME PHARMACEUTICALS, INC. (US MCSwiggen, James (US); Chowrira, Location/Qualifiers
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Patent: WO 0159103-A 5996 16-AUG-2001;
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/mol type="genomic DNA"
/db_xref="taxon:32630"
/note="Nucleic Acid"
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Blatt, L., Mcswiggen, J. and Chowriza, B.M. Method and reagent for the modulation and nogo gene expression patent: WO 0159103-A 5997 16-AUG-2001;
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Method and reagent for the modulation and dia
nogo gene expression
Patent: WO 0159103-A 5998 16-AUG-2001;
RIBOZYME PHARWACEUTICALS, INC. (US); Blatt,
McSwiggen, James (US); Chowrira, Bharat M. (
McSwiggen, James (US); Chowrira, Bharat M. (
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                                                                                                nogo gene expression
Patent: WO 0159103-A 5999 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt,
McSwiggen, James (US); Chowrira, Bharat M.
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/note="Nucleic Acid"
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Method and reagent for the modulation and dia
nogo gene expression
Patent: WO 0159103-A 6001 16-AUG-2001;
RIBOZYME HARRMACEUTICALS, INC. (US); Blatt,
McSwiggen, James (US); Chowrira, Bharat M.
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Patent: WO 0159103-A 6003 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt, Law
McSwiggen, James (US); Chowrira, Bharat M. (US)
Location/Qualifiers
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Method and reagent for the modulation and diagnosis of cd20 a
nogo gene expression
Patent: WO 0159103-A 6004 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt, Lawrence (US);
McSwiggen, James (US); Chowrira, Bharat M. (US)
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score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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MCSwiggen, James (US); Chowrira, Bharat M.
Location/Qualifiers
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Chowrira,B. and Blatt,L.
Nucleic acid sensor molecules
Patent: WO 0166721-A 21 13-SEP-2001;
RIBOZYME PHARMACEUTICALS, INC. (US)
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                                                        Method and reagent for the inhibition of erg Patent: WO 0188124-A 5346 22-NOV-2001; RIBOZYME PHARMACEUTICALS, INC. (US); GLAXO
                                                                                                                                                                                                              synthetic construct synthetic construct
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Sequence 5346 from Patent
AX427010
AX427010.1 GI:21530396
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/mol type="genomic DNA"
/db_xref="taxon:32630"
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/db xref="taxon:32630"
/noTe="Nucleic Acid"
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l Similarity 100.0%;
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Todd, A.V., Fuery, C.J. and Cairns, M.J.
Catalytic nucleic acid-based diagnostic
Patent: US 6361941-A 23 26 MAR-2002;
Location/Qualifiers
                                                                                                                                                                                                            Sequence 23
AR201808
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Patent: WO 0211674-A 5447 14-FEB-2002;
RIBOZYME PHARMACEUTICALS, INC. (US);
Thompson, James (US)
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synthetic construct
artificial sequences.
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/mol type="genomic DNA"
/db xref="taxon:32630"
/note="Enzymatic Nucleic Acid"
/ c 4 g 2 t
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/db_xref="taxon:32630"
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Pred. No. 3e+02;
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Todd, A. V., Fuery, C. J. and Cairns, M. J.
Catalytic nucleic acid-based diagnostic
Catalytic nucleic 25 26-MAR-2002;
Patent: US 6361941-A 25 26-MAR-2002;
Location/Qualifiers
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Todd, A.V., Fuery, C.J. and Cairns, M.J.
Catalytic nucleic acid-based diagnostic
Patent: US 6361941-A 55 26-MAR-2002;
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Altering gene expression with ssdna produced in vivo Patent: WO 0125419-A 3 12-APR-2001;
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                          Jarvis, T., von Carlowitz, I., Mcswiggen, J.A., Hamblin, P.A.
and reagent for the inhibition
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/mol type="genomic DNA"
/db_xref="taxon:32630"
/note="PKC alpha ribozyme"
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/mol type="genomic DNA"
/mb_xref="taxon:32630"
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RIBOZYME PHARMACEUTICALS, INC. (US) ; GLAXO GROUP LIMITED Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                  Method and reagent for the inhibition of grid Patent: WO 0162911-A 2288 30-AUG-2001; RIBOZYME PHARMACEUTICALS, INC. (US); GLAXO GROUP
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/mol_type="genomic DNA"
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db_xref="taxon:32630"
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Todd, A. V., Fuery, C.J. and Cairns, M.J.
Zymogenic nucleic acid detection methods
Patent: US 6140055-A 5 31-OCT-2000;
Location/Qualifiers
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Todd, A.V., Fuery, C.J. and Cairns, M.J.
Catalytic nucleic acid-based diagnostic
Patent: US 6361941-A 45 26-MAR-2002;
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Todd, A.V., Fuery, C.J. and Cairns, M.J.
Todds, I.V., Fuery, C.J. and Cairns, M.J.
Catalytic nucleic acid-based diagnostic methods
Patent: US 6361941-A 48 26-MAR-2002;
Location/Qualifiers
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Todd, A.V., Fuery, C.J. and Cairns, M.J.
Catalytic nucleic acid-based diagnostic
Patent: US 6361941-A 51 26-MAR-2002;
Location/Qualifiers
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Todd,A.V., Fuery,C.J. and Cairns,M.J.
Zymogenic nucleic acid detection methods,
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Patent: WO 0159103-A 5989 16-AUG-2001;
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Patent: WO 0159103-A 5988 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt,
McSwiggen, James (US); Chowrira, Bharat M.
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/mol type="genomic DNA"
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Method and reagent for the modulation and dia
nogo gene expression
Patent: WO 0159103-A 5990 16-AUG-2001;
RIBOZYME WHARMACEUTICALS, INC. (US); Blatt,
McSwiggen, James (US); Chowrira, Bharat M. (
McSwiggen, James (US); Chowrira, Bharat M. (
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Method and reagent for the modulation and diagnosis
nogo gene expression
Patent: WO 0159103-A 5993 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt, Lawrenc
McSwiggen, James (US); Chowrira, Bharat M. (US)
Location/Qualifiers
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Patent: WO 0159103-A 5995 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt,
McSwiggen, James (US); Chowrira, Bharat M.
Location/Qualifiers
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Patent: WO 0159103-A 5994 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt, Lawrence (US)
MCSwiggen, James (US); Chowrira, Bharat M. (US)
Location/Qualifiers
 nogo gene expression
Patent: WO 0159103-A 5996 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US) ;
                                                                                        synthetic construct synthetic construct
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                                      Blatt,L., Mcswiggen,J. and Chowrira,B. Method and reagent for the modulation
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/db_xref="taxon:32630"
/note="Nucleic Acid"
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
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RESULT 33
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          nogo gene expression
Patent: WO 0159103-A 5998 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt, Lawrence (US)
MCSwiggen, James (US); Chowrira, Bharat M. (US)
                                                                                                              synthetic construct
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Sequence 5998 from Patent
AX220556
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Patent: WO 0159103-A 5997 16-AUG-2001;
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AX220555
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Location/Qualifiers
                                                            Blatt,L., Mcswiggen,J. and Chowrira,B.M. Method and reagent for the modulation and
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/db_xref="taxon:32630"
/note="Nucleic Acid"
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Location/Qualifiers
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/db_xref="taxon:32630"
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Pred. No. 2.8e+02;
1; Mismatches 0;
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Pred. No. 2.8e+02;
1; Mismatches 0
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AX220558
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Patent: WO 0159103-A 5999 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt,
McSwiggen, James (US); Chowrira, Bharat M.
Location/Qualifiers
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Patent: WO 0159103-A 6000 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt,
McSwiggen, James (US); Chowrira, Bharat M.
Location/Qualifiers
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/mol type="genomic DNA"
/db xref="taxon:32630"
/note="Nucleic Acid"
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/organism="synthetic construct"
/mol_type="genomic DNA"
/db_xref="taxon;32630"
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Patent: WO 0159103-A 6001 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt,
McSwiggen, James (US); Chowrira, Bharat M.
Location/Qualifiers
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Method and reagent for the modulation and diagnosis
nogo gene expression
Patent: WO 0159103-A 6002 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt, Lawrenc
McSwiggen, James (US); Chowrira, Bharat M. (US)
Location/Qualifiers
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/mol_type="genomic DNA"
/db_xref="taxon:32630"
/nofe="Nucleic Acid"
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                                    /organism="synthetic construct"
/mol_type="genomic DNA"
/db_xref="taxon.32630"
                 /note="Nucleic Acid"
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Patent: WO 0.59103-A 6004 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt,
McSwiggen, James (US); Chowrira, Bharat M. (
Location/Qualifiers
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Sequence 6004 from Patent
AX220562
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Patent: WO 0159103-A 6003 16-AUG-2001,
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt,
McSwiggen, James (US); Chowrira, Bharat M. (
Location/Qualifiers
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/mol type="genomic DNA"
/db xref="taxon:32630"
/noTe="Nucleic Acid"
                                              /organism="synthetic construct"
/mol type="genomic DNA"
/mol xref="taxon:32630"
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Pred. No. 2.8e+02;
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Patent: WO 0159103-A 6005 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt,
MCSwiggen, James (US); Chowrira, Bharat M.
Location/Qualifiers
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The present invention relates to a method for identifying sites
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                                                                            (CITY ) CITY OF HOPE
                                                                                                                                                                                                                                                    l Similarity
16; Conserv
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                                                               Riggs A,
           Page 7; 38pp; English
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This sequence is used in a method which involves the production of CC catalytic DNA molecules which can be used for cleaving target nucleic CC acid molecules. Such DNA molecules can be used in pharmaceutical and CC medical products (e.g. for wound debridement, clot dissolution), as well cas in household items (e.g. detergents, dental hygiene products, meat CC tenderisers'). Other suitable substrates include those comprising or CC produced by picornaviruses, hepadnaviridae, (e.g. HBV, HCV), produced by picornaviruses, hepadnaviridae, (e.g. HBV, HCV), CC papitiomaviruses (e.g. HPV), gammaherpesvirinae (e.g. EBV), CC lymphocryptoviruses, leukemia viruses (e.g. HTLV-1 and -11), productiviruses, togaviruses, cytomegaolviruses (including alphaherpesviruses) criviruses and retroviruses contributing to immunodeficiency diseases and covine leukemia viruses. They can also be used as regulators of gene expression.
                       Identifying sites on a target or in vitro-synthesized RNA accessible antisense, ribozyme, or DNAzyme binding comprises incubating hybridizing the target RNA with an antisense oligodeoxynucleotides,
                                                                                                                                                                                                                                                                                                                                                                     27-MAR-2000; 2000WO-US07920
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ribozymes or DNAzymes
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RESULT 3
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Best Local
                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                     with DNAzymes, antisense oligonucleotides or ribozymes (such as the present sequence). Any antisense oligonucleotide, ribozyme or DNAzyme which is complementary to an accessible site in the target sequence hybridises to that site and the sequence is cleaved. The cleavage products can then be detected to identify the accessible binding sites
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The
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                                                                                                                                                                                                                                                                  Sequence 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNAzymes.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       antisense, ribozyme, or DNAzyme binding comprises incubating hybridizing the target RNA with an antisense oligodeoxynucleotides,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Identifying sites on a target or in vitro-synthesized RNA accessible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (CITY ) CITY OF HOPE.
                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         e present invention relates to a method for identifying sites on a rget RNA which are accessible to pairing by antisense DNA, ribozymes cazymes. The present sequence is a DNAzyme catalytic core sequence. The method of the present invention the target sequence is incubated the method of the present invention the target sequence is incubated the method of the present invention the target sequence is incubated the method of the present invention the target sequence is incubated the method of the present invention the target sequence is incubated the method of the present invention the target sequence is incubated the method of the present invention the target sequence is incubated the method of the present invention the target sequence is incubated the method of the present invention the target sequence is incubated the method of the present invention the target sequence is incubated the method of the present invention the target sequence is incubated the method of the present invention the target sequence is incubated the method of the present invention the target sequence is incubated the method of the present invention the target sequence is incubated the method of the present invention the target sequence is incubated the method of the present invention the target sequence is incubated the method of the present invention the target sequence is incubated the method of the present invention the target sequence is incubated the method of the present invention the present in
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Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 enzymatic nucleic acid component and one or more gensor components. (Ī) is useful in diagnostic applications to identify the presence of genes and/or gene products indicative of a particular genotype and/or phenotype, e.g. a disease state or infection and for diagnosis of disease states or physiological abnormalities related to the expression of viral, bacterial or cellular RNA and DNA. (I) is useful in nucleic acid-based electronics, for the detection of specific target signalling molecules, in assays to assess the specificity, toxicity and effectiveness of various small molecules, nucleoside analogues or non-nucleic acid drugs or for detection of pathogens, biochemicals, organic or inorganic compounds. The present sequence is that of a DNAzyme motif of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New nucleic acid sensor molecule useful in diagnostic applications, nucleic acid-based electronics and functional genomics, comprises a enzymatic nucleic acid and one or more sensors
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                                                                                                                                    AAH97756
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNAzyme motif
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to a nucleic acid sensor molecule (I) comprising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Usman N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (RIBO-) RIBOZYME PHARM INC
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                                                                                                                                                                                                                                                                                                                       RGGCTAGCTACAACGA 16
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                                                                                                                                    standard;
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B, Blatt L;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BP; 5
                                                                                                                                                                                                                                                                                                                                                                         Conservative
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Pred. No. 3
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; checkpoint kinase-1; Chkl; antisense; ribozyme; gene therapy; RNA cleavage; cancer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNAzyme ribozyme motif SEQ
                                                              Human; 88; antisense therapy; cytostatic; antiinflammatory; haemostatic; cerebroprotective; nootropic; neuroprotective; antiparkinsonian; muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme; DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; Jymphoma; leukaemia; B-cell lymphoma; non-Hodgkin s lymphoma; NHH; lymphocytic leukaemia; human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma; MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia; inflammatory arthropathy; central nervous system injury; cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis; chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS; parkinson's disease; ataxia; Huntington's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention provides nucleic acid molecules capable of downregulating the expression of the human checkpoint kinase-1 (Chkl) gene. These may be antisense or ribozyme sequences, and are useful in the treatment of diseases associated with conditions affected by Chkl levels, including cancer. The present sequence is an oligonucleotide described in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel nucleic acid molecule e.g., ribozymes or antisense nucleic acid molecules, which downregulates expression of a checkpoint kinase-1 gene, useful for treating colorectal, lung, breast or prostate cancers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 16
                                                                                                                                                                                                                                                    DNAzyme motif.
                                                                                                                                                                                                                                                                                                                                          ABK09278 standard; DNA; 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                               μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5; 115pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5 A;
                                                           disease; muscular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ID NO: 3186.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
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Pred. No. 34;
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                                                           dystrophy; neurodegenerative disease
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BB
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WO200159103-A2

ABK61076 ID ABK6 XX

ABK61076 standard; DNA;

16

ВP

RESULT 7

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Best Loc Matches Query Match

Local

Similarity

ilarity 100.0%; Conservative (

97.5%; Score 15.6; D 100.0%; Pred. No. 34; tive 0; Mismatches

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Length

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16;

1 RGGCTAGCTACAACGA 16

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CC expression of a CD20 gene and a nucleic acid molecule which down regulates CC expression of a CD20 gene and a nucleic acid molecule which down regulates expression of a neurite growth inhibitor gene (NOGO).

CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYA possessing an NCH motif), a G-cleaver (cleaving RNA with a NYA molecule CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYA molecule CC (cleaving RNA with a YGY motif). The CD20-targetting nucleic acid is used CC (cleaving RNA with a YGY motif). The CD20-targetting nucleic acid is used CC (cleaving RNA with a YGY motif). The CD20-targetting nucleic acid is used CC cpederably Mg^2+. Furthermore, it may be contacted with a cell to reduce CC cp20 activity of the cell and treat a patient having a condition associated with the level of CD20. The treatment may further comprise the CC use of one or more therapies. In particular, the CD20 targetting CC lymphoma, low-grade or follicular NHL, lymphocytic leukaemia, HIV (human 10w-grade or follicular non-Hodgkin's lymphoma (NHL), bulky CC immunocytoma (IMC), small B-cell lymphocytic lymphoma (NHL), immune conception of that is preferably Mg^2+. Furthermore, the nucleic acid may be contacted with a cell to reduce NOGO gene in the presence of a concleic acid is used to cleave RNA of the NOGO gene in the presence of a concleic acid is used to cleave RNA of the NOGO activity of the cell and creatment may further comprise the use of one or more therapies.

CC treatment may further comprise the use of one or more therapies.

CC treatment may further comprise the use of one or more therapies.

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CC treatment may further comprise the use of one or more thera
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28-FEB-2000; 2000US-185516P.
06-MAR-2000; 2000US-187128P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense constructs, which down regulate expression of a CD20 gene or neurite growth inhibitor gene useful for treating, e.g., lymphoma, leukemia,
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(BLAT/)
(MCSW/)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Fig 5; 200pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and central nervous system injury
Sequence 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (CHOW/)
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BLATT L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHOWRIRA B M.
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    BP; 5 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001WO-US04273
    4 C; 4 G;
      2 T; 1 other;
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RESULT 8
ABK22719
ID ABK2
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Matches
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                                                                                                                                                                                                                                                                                                                                                           The invention relates to enzymatic nucleic acid molecules that down regulate expression of chloride channel calcium activated 1 (CLCA1) genes by cleaving RNA derived from the genes. The nucleic acid sequences are useful as pharmaceutical agents for treating conditions such as chronic obstructive pulmonary disease (COPD), chronic bronchitis, asthma, cystic fibrosis, obstructive bowel syndrome and any other diseases or conditions that are related to or will respond to the levels of CLCA1 in a cell or tissue. The sequences are useful for reducing CLCA1 activity in a cell, hence, are useful for treatment of a patient having a condition associated with the level of CLCA1, where the invention further comprises the use of one or more therapies under conditions suitable for the treatment, for example, oxygen therapy, bronchodilators, corticosteroids, antibacterials, vaccinations, acetylcysteine and mucokinetic agents. The nucleic acids of the invention are also used as diagnostic tools to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Enzymatic polynucleotide that down regulates expression of chloride channel calcium activated gene, useful for treating Chronic obstructive pulmonary disease (COPD), chronic bronchitis and asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           chronic bronchitis; cystic fibre oxygen therapy; bronchodilator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; chloride channel calcium activated 1; CLCA1; ss; antiasthmatic; antiinflammatory; chronic obstructive pulmonary disease; COPD; asthma;
09-APR-2002
                               ABK22719;
                                                                                                                                                                                                                                                                                                                examine genetic drift and mutations within diseased cells or to detect the presence of CLCA1 RNA in a cell. This sequence represents an enzymatic nucleic acid molecule of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Fig 4; 152pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               acetylcysteine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human CLCA1
                                                              ABK22719 standard; RNA; 16
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                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                l Similarity
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SYNTEX USA LLC.
THOMPSON J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         lammatory; chronic obstructive pulmonary disease; COPD; a
bronchitis; cystic fibrosis; obstructive bowel syndrome;
bronchodilator; corticosteroid; vaccination; muc
therapy;
                                                                                                                                            RGGCTAGCTACAACGA 16
                                                                                                                                                                               RGGCTAGCTACAACGA 16
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                                                                                                                                                                                                                  Conservative
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100.0%; Pred. No. 34;
tive 0; Mismatches
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                                                                ВP
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                                                                                                                                                                                                                                                                                 2 T; 1 other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                #5445
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                                                                                                                                                                                                                                                Length 16;
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DNAzyme motif.

Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic; ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic; vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis; tumour angiogenesis; diabetic retinopathy; macular degeneration; neovascular glaucoma; mopopic degeneration; arthritis; verruca vulgaris; angiofibroma of tuberous sclerosis; port-wine stain; wound healing; sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; leukaemia; ss; Osler-Weber-rendu syndrome, leukaemia; osteoporosis; DNAzyme; inozyme; amberzyme.
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Synthetic. WO200188124-A2.

16-MAY-2001; 2001WO-US15866. 16-MAY-2000; 2000US-0572021.

22-NOV-2001

(RIBO-) RIBOZYME PHARM INC. (GLAX) GLAXO GROUP LTD. Jarvis T, Von Carlowitz I, McSwiggen JA, Mclaughlin F, Randi AM;

Novel polynucleotide which down regulates expression of Ets-related gene, useful for treating cancer, diabetic retinopathy, macular degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber syndrome

Disclosure; Figure 5; 149pp; English.

The invention relates to a nucleic acid molecule (I) which down regulates conditions selected from cancer, lymphoma, Eusful for treating conditions selected from cancer, lymphoma, Eusful for treating cumour angiogenesis, diabetic retinopathy, macular degeneration, neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca culgaris, angiofibroma of tuberous sclerosis, port-wine stains, Sturge weber syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-rendu creating a patient having a condition associated with the level of ERG, by contacting a patient having a condition associated with the level of ERG, cunder conditions suitable for the treatment. The method comprises the use of one or more therapies conjunction with one or more of other treatment or tumour conjunction with one or more of other therapies such as radiation or conjunction with one or more of other therapies such as radiation or conjunction with one or more of other therapies such as radiation or conjunction such as Mg2+. (I) is useful for reducing ERG activity in a cell, by contacting the cell with RNA, in the presence of a divalent cation such as Mg2+. (I) is useful for diagnosis of conditions and conjunction such as Mg2+. (I) is useful for diagnosis of conditions and conjunction of ERG RNA in a cell. (I) is useful for specifically cation such as Mg2+. (I) is useful for diagnosis of conditions and conjunction of ERG RNA in a cell. (I) is useful for specifically cation spens that share homology with ERG gene or ERG fusion genes. ABK17354-ABK2719 represent nucleic acid molecules which regulate expression of ERG, and conjunction of the invention.

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Query Match 97.5%; Score 15.6; DB 24;
Best Local Similarity 100.0%; Pred. No. 34;
Matches 16; Conservative 0; Mismatches 0;

1 RGGCTACCTACAACGA 16
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16

BP; S A;

4 C; 4 G;

2 T; 1 other;

Length Indels

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Gaps

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RGGCTAGCTACAACGA

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cancer and is useful for down-regulating REL-A activity in a cell, for treating a patient having a condition associated with the level of REL-A. (I) is useful for cleaving RNA comprising a sequence of REL-A gene, in the presence of a divalent cation, especially Mg'2'+. The enzymatic and antisense nucleic acid molecules are useful for treating breast, lung, prostate, colorectal, brain, oesophageal, stomach, bladder, pancreatic, cervical, head and neck, ovarian cancer, melanoma, lymphoma, glioma or multidrug resistant cancer. The method involves use of other drug therapies such as monoclonal antibodies, REL-A-specific inhibitors or chemotherapy including paclitaxel, docetaxel, cisplatin, methotrexate, gemcitabine or radiation therapy. The enzymatic and antisense nucleic acid molecules are also useful for treating inflammatory disease such as characteristic and antisense nucleic acid molecules are also useful for treating inflammatory disease such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            G-cleaver; amberzyme; cancer; REL-A activity; breast cancer; lung cancer; prostate cancer; colorectal cancer; prain cancer; cosphageal cancer; stomach cancer; bladder cancer; pancreatic cancer; cervical cancer; head and neck cancer; ovarian cancer; melanoma; lymphoma; glioma; multidrug resistant cancer; REL-A-specific inhibitor; chemotherapy; paclitaxel; docetaxel; cisplatin; methotrexate; cyclophosphamide; doxorubin; fluorouracil carboplatin; deterexate; genecitabine; radiation therapy; inflammatory disease; asthma; diabetes; rheumatoid arthritis; restenosis; Crohn's disease; besity; ischaemia; gene therapy; autoimmune disease; lupus; multiple sclerosis; sepsis; transplant/graft rejection; reperfusion injury; glomerulonephritis; allergic airway inflammation; inflammatory bowel disease; infection;
                                                                                                                                                                                                                                                                                                                                                                                                                 Fig
                                                                                                                                                                                                                                                                                                             regulates expression of a sequence encoding a subunit of nuclear factor kappa B (NFKB), where (I) is an inozyme, zinzyme, G-cleaver or amberzyme configuration. The enzymatic nucleic acid molecule is adapted to treat
                                                                                                                                                                                                                                                                                                                                                                                                                                                     treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel enzymatic nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-340953/32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Stinchcomb DT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (STIN/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-DEC-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-MAY-2001; 2001US-0864785.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-NOV-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Necrosis factor kappa B (NFKB) modulating DNAzyme motif.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACA10109 standard;
                                          rheumatoid arthritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-AUG-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Enzymatic nucleic acid; nuclear factor kappa B; NFKB; inozyme; zinzyme;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ø
                                                                                                                                                                                                                                                                                                                                                                                                                   4.
                                                                                                                                                                                                                                                                                                                                                                            invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       l enzymatic nucleic acid molecules which down regulates expression sequence encoding a subunit of nuclear factor kappa B useful for
                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 3928; 72pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DRAPER K G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STINCHCOMB
                      autoimmune disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                       cancer, inflammatory disorders and autoimmune diseases
                                                                                                                                                                                                                                                                                                                                                      expression of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94US-0291932.
92US-0987132.
94US-0245466.
96US-0777916.
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                                      restenosis, asthma,
ease, lupus, m
applications,
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                                                                                                                                                                                                                                                                                                                                                                          an enzymatic nucleic acid molecule (I) which
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Draper KG
                    multiple sclerosis, transplant/graft
                                      Crohn's disease, diabetes,
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RESULT 10
ABZ58432
ID ABZ58
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The present sequence is an example of a DNAzyme, an enzymatic CC nuclear acid (ENA) that does not require the presence of a 2'-OH CC group for its activity. DNAzymes can be used as the ENA moiety in CC novel ENA peptide conjugates (I) of the invention that facilitate CC delivery of molecules into biological systems, such as cells. The CC peptide part of the conjugate is typically a fluored peptide such cas a peptide given in ABP72298-ABP72305. The conjugates can be CC used to treat a cancer patient, where the cancer is breast, lung, CC colorectal, brain, oesophageal, stomach, bladder, pancreas, crivic, head and neck or ovary cancer, melanoma, lymphoma, glioma or CC the virus is HIV, hepatitis B virus, hepatitis C virus, cous sarcoma virus, hepatitis C virus, CC thougalovirus, Rous sarcoma virus, hepatitis C virus, Ebola virus, foot and mouth disease virus or papilloma virus (all colaimed). (I) are useful for introducing nucleotides, proteins cand/or non-nucleosidic small molecules into a cell and to detect the presence of a target molecule in a biological system such as CC tissue, cell or cell lysate. They are useful as diagnostic tools cto examine genetic drift and mutations within diseased cells or to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (central nervous system (CNS) and myocardial), glomerulonephritis, sepsis, allergic airway inflammation, inflammatory bowel disease or infection. This sequence represents a motif of an enzymatic nucleic used to modulate the function of a necrosis factor kappa B sub-unit.
                                                                                                                                                                                                                                                                                                                                                                                                             biological system such 
infections -
                                                                                                                                                                                                                                                                                                                                                                                                                          New transporter compounds useful for biological system such as cells, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Beigelman L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-JAN-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNAzyme motif.
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                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Fig 4; 88pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-247828/25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-JUL-2001; 2001US-306995P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          delivery;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNAzyme;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 _
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16; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIBOZYME PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          enzymatic nucleic acid; enzyme; transporter;
; cytostatic; virucide; gene therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RGGCTAGCTACAACGA 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16 BP; 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Azhayev A, Azhayeva E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; 4 C; 4 G;
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Pred. No. 34;
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                                                                                                                                                                                                                                                                                                                                                                                                                       delivering molecules for treating cancer a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB
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RESULT 11
ABZ66525
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                                                  Query Match
Best Local S
Matches 15
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Best Local :
                                                                                                                                                          The invention relates to a novel short interfering RNA (siRNA) nucleic acid molecule or an enzymatic nucleic acid molecule, that modulates expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras human immunodeficiency virus (HIV) or a component of HIV. The nucleic acid molecule of the invention has cytostatic, anti-HIV, and anti-rheumatic activity. The nucleic acid molecules are useful for reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are also useful for treating breast, ovarian, colorectal, lung, prostate, bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences shown in ABS62217 - ABS64543, ABS65532 - ABS65519,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-MAY-2001; 2001US-294140P.
06-JUN-2001; 2001US-296249P.
10-SEP-2001; 2001US-318471P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 16
                                                                                                          Sequence 27
                                                                                                                                                                                                                                                                                                                                      Novel short interfering RNA and enzymatic nucleic acid useful for treating cancer, modulates the expression of a nucleic acid encoding HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-DEC-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       detect the presence of a disease-related RNA in a cell
                                                                                                                                                ABZ66525 - ABZ66529,
                                                                                                                                                                                                                                                                                                             Claim 3; Page 153; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-140484/13
                                                                                                                                                                                                                                                                                                                                                                                                                        Mcswiggen
                                                                                                                                                                                                                                                                                                                                                                                                                                                   (RIBO-) RIBOZYME PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-MAY-2002; 2002WO-US16840.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200297114-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            anti-rheumatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human HER2 synthetic DNAzyme #1.
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                                                                  Similarity
                         RGGCTAGCTACAACGA 16
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AGGCTAGCTACAACGA 21
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                                                  Conservative
                                                                                                        BP; 6 A; 6 C; 10 G; 2 T; 3 U; 0 other;
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llarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cancer; AIDS; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; 4 C; 4 G; 2 T; 1 other;
                                                                                                                                                ABZ66586 - ABZ66658 represent human ribozymes of
                                                               97.5%;
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                                                                 Score 15.6;
Pred. No. 39
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                                                     Mismatches
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                                                                  35;
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RESULT 13
AAZ34361
ID AAZ34
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AC AAZ34
XX
DT 14-DE
XX
DB Nucle
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ABZ66527
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06-JUN-2001;
10-SEP-2001;
                                                                                                                                                                                                                                                                                             acid molecule or an enzymatic nucleic acid molecule, that modulates expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras, human immunodeficiency virus (HIV) or a component of HIV. The nucleic acid molecule of the invention has cytostatic, anti-HIV, and anti-rheumatic activity. The nucleic acid molecules are useful for reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are also useful for treating breast, ovarian, colorectal, lung, prostate, bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences shown in ABZ62217 - ABZ64543, ABZ65532 - ABZ65519, ABZ66525 - ABZ66529, ABZ66586 - ABZ66588 represent human ribozymes of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel short interfering RNA and enzymatic nucleic acid useful for treating cancer, modulates the expression of a nucleic acid encoding HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences
                            14-DEC-1999
                                                                                                                                                                                                                                                          Sequence 27 BP; 11 A; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mcswiggen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human HER2 synthetic DNAzyme
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                                                     AAZ34361;
                                                                              AAZ34361 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 3; Page 153; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-140484/13
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                                                                                                                                                                           1 RGGCTAGCTACAACGA 16
                                                                                                                                                                                                     15; Conserv
                                                                                                                                                  AGGCTAGCTACAACGA
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; 2001US-296249P.
; 2001US-318471P.
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                          (first entry)
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                                                                                DNA;
                                                                                                                                                                                                                97.5%;
93.8%;
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                                                                                                                                                                                                                                                          G; 2 T; 0 other;
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                                                                                                                                                                                                                               Score 15.6;
                                                                                                                                                                                                                    Pred.
                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                    No.
                                                                                                                                                                                                                    35;
                                                                                                                                                                                                                               DB 25;
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                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                      RNA (siRNA) nucleic
                                                                                                                                                                                                                                 27;
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                                                                                                                                                                                                      Gaps
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Nucleic acid-based diagnostic exemplification oligonucleotide #23.

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RESULT 14
AAZ34363
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                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Todd
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Detecting diseases associated with a known mutation by amplification and cleavage with catalytic nucleic acids, particularly for cancer, human immune deficiency virus and cystic fibrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention describes a method for determining whether a subject is afflicted with a disorder characterised by the presence of a known nucleic acid. The method comprises: (i) amplifying, in an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (JOHJ ) JOHNSON & JOHNSON RES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 29 BP; 10 A; 5 C; 10 G; 3 T; 1 other;
                                                                                                                                                                   14-DEC-1999
                                                     Catalytic nucleic acid-based diagnostic method; determination; AIDS; mutation; ribozyme; target; cleavage; amplification; PCR primer; probe; cancer; human immune deficiency virus; cystic fibrosis; HIV; ss
                                                                                                                             Nucleic acid-based diagnostic exemplification oligonucleotide #25.
                                                                                                                                                                                                      AAZ34363;
                                                                                                                                                                                                                                            AAZ34363 standard;
                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
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                                                                                                                                                                                                                                                                                                                                          AGGCTAGCTACAACGA 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Page 20; 57pp; English.
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                                                                                                                                                                       (first
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                                                                                                                                                                                                                                                DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                   97.5%;
93.8%;
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The present invention describes a method for determining whether a cc subject is afflicted with a disorder characterised by the presence of a known nucleic acid. The method comprises: (1) amplifying, in an cl isolated sample from the subject, the nucleic acid segment that, in an catalytic nucleic acid (1) that specifically recognizes and cleaves a cc catalytic nucleic acid (1) that specifically recognizes and cleaves a cc catalytic nucleic acid (1) that specifically recognizes and cleaves a cc catalytic nucleic acid (1) that specifically recognizes and cleaves a cc catalytic nucleic acid (1) that specifically recognizes and cleaves a cc catalytic nucleic acid (1) that specifically recognizes and precisions of the method is specifically cc (1) may be performed concurrently with (1). The method is specifically cc used to diagnose cancer (especially), acquired immune deficiency cc syndrome and cystic fibrosis. (1) recognises as few as two bp to create a cleavage site (contrast at least 4 bp required by enzymes used in a cleavage site (contrast at least 4 bp required by enzymes used in a cleavage site contrast than restriction enzyme sites, and mismatched cc primers can be used to induce cleavage sites for (1). The method is primers can be used to induce cleavage sites for (1). The method is cc contrailly more flexible than RFLP and does not require any enzymes or toxic compounds. AAZ3433 to AAZ34450 represent oligonucleotide cc sequences used in the exemplification of the present invention.
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ID AAC
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RESULT 15
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Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Detecting diseases associated with a known mutation by amplification and cleavage with catalytic nucleic acids, particularly for cancer, human immune deficiency virus and cystic fibrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-MAR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                               Hammerhead ribozyme DNA motif #23.
                                                                                                                                                                                                                                                                                                                                AAC82623 standard; DNA; 29 BP
                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                 13-MAR-2001
                                                                                                                                                                                                                                                                                                 AAC82623;
               26-MAR-1999;
                                                                                                                                                                                                 Detection;
                                                26-MAR-1999;
                                                                                 28-SEP-2000.
                                                                                                                   DE19915141-A1
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15; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                  AGGCTÁGCTÁCAÁCGÁ 24
                                                                                                                                                                                 amplification; pathogenic bacteria; signal; cleavage; 88.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                 (first entry)
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                    99DE-1015141
                                                    99DE-1015141
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 15.6;
Pred. No. 35
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                                                                                                                                                                                                          hammerhead ribozyme;
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RESULT 16
ABZ66526
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CC quantitative real-time determination of nucleic acid (I) using a primer CC attached to a 1-40 nucleotide sequence (II) in the transcription product. CC Amplification is done in the presence of an excess, preferably 50-500 nM, CC of a nucleic acid probe (III) and labeled by a reporter molecule and a CC quencher molecule. (I) encodes the motif 5'-GAAA-3' (A), and (II) CC contains the motif 5'-CUGANCA-3' (B). (III) has 25-60, especially 50, CC nucleotides. The method is used to detect and quantify (I) from CC pathogenic bacteria. The method allows real-time detection and CC quantification of (I), particularly RNA by NASBA (RTM) (nucleic acid Sequence-based amplification), without the difficulties associated with CC use of DNA probes (see Nucleic Acid Res., 26 (1998) 2150) and is suitable CC to routine use. Specifically the combination of (A) and (B) generates a CC hammerhead ribozyme that cleaves the probe and generates a fluorescent CC signal. Since many probes are cleaved, a high signal is produced, CC resulting in high sensitivity and shorter reaction times. The method is CC resulting in high sensitivity and shorter reaction times the method is CC cleavage results in dissociation of the probe to target is necessary CC for roleavage to occur. Complicated probes are not required because CC cleavage results in dissociation of the probe from the target (which CC consisting mainly of 2'-deoxyribonucleotides.
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Best Local S
Matches 16
                                            29-MAY-2001;
06-JUN-2001;
10-SEP-2001;
                                                                                                                                                                                                               Homo
                                                                                                                                                                                                                                             Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras; enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; antianti-rheumatic; cancer; AIDS; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Real-time quantitative amplification of nucleic acid, useful for detecting bacterial pathogens, uses primer and labeled probe that combine to form a ribozyme -
                                                                                                            29-MAY-2002; 2002WO-US16840.
                                                                                                                                                 05-DEC-2002
                                                                                                                                                                              WO200297114-A2
                                                                                                                                                                                                                                                                                                                Human HER2 synthetic DNAzyme #2.
                                                                                                                                                                                                                                                                                                                                                 21-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                  ABZ66526;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 29
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               (RIBO-) RIBOZYME PHARM INC
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                                                                                                                                                                                                               sapiens
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                                            ; 2001US-294140P.
; 2001US-296249P.
; 2001US-318471P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97.5%;
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RESULT 17
ABZ66528 *
ID ABZ665
XX
AC ABZ665
XX
\begin{array}{c} \mathsf{CC} \times \mathsf{S} \times \mathsf{FPT} \\ \mathsf{FPT} \times \mathsf{SP} \times \mathsf{FPT} \\ \mathsf{FPT} \times \mathsf{FPT} \times \mathsf{FPT}
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Best Local S
Matches 15
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06-JUN-2001;
10-SEP-2001;
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                                                                                                                                                           Novel short interfering RNA and enzymatic nucleic acid useful for treating cancer, modulates the expression of a nucleic acid encoding HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras; enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV; anti-rheumatic; cancer; AIDS; ss.
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                                                                           Claim 3; Page 153; 185pp; English.
                                                                                                                                                                                                                                                                                                                                        WPI; 2003-140484/13.
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The invention relates to a novel short interfering RNA (siRNA) nucleic

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Matches 15
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The invention relates to a novel short interfering RNA (siRNA) nucleic acid molecule or an enzymatic nucleic acid molecule, that modulates expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ra human immunodeficiency virus (HIV) or a component of HIV. The nucleic acid molecule of the invention has cytostatic, anti-HIV, and anti-reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are also useful for treating breast, ovarian, colorectal, lung, prostate, bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences shown in ABZ66217 - ABZ66583 - ABZ65532 - ABZ65519, ABZ66529, ABZ6659, ABZ66586 - ABZ66658 represent human ribozymes of the sequences and ABZ65217 - ABZ66586 - ABZ66588 represent human ribozymes of the sequences and ABZ65219, ABZ66529, ABZ66586 - ABZ66588 represent human ribozymes of the sequences and ABZ6529, ABZ66586 - ABZ66588 represent human ribozymes of the sequences and ABZ6529, ABZ66586 - ABZ66588 represent human ribozymes of the sequences and ABZ6529, ABZ66586 - ABZ66588 represent human ribozymes of the sequences and ABZ6529, ABZ66586 - ABZ66588 represent human ribozymes of the sequences and ABZ6529, ABZ66588 - ABZ66588 represent human ribozymes of the sequences and ABZ6529, ABZ66588 - ABZ66588 represent human ribozymes of the sequences and ABZ6529, ABZ66588 - ABZ66588 represent human ribozymes of the sequences and ABZ6529, ABZ66588 - ABZ66588 represent human ribozymes of the sequences and ABZ6529, ABZ66588 - ABZ66588 represent human ribozymes of the sequences and ABZ6529, ABZ66588 - ABZ66588 represent human ribozymes of the sequences and ABZ6529, ABZ66588 - ABZ66
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel short interfering RNA and enzymatic nucleic acid useful for treating cancer, modulates the expression of a nucleic acid encoding HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences
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RESULT 19
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06-JUN-2001;
10-SEP-2001;
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                                                                                                                                                                                                            The invention relates to a novel short interfering RNA (siRNA) nuclei acid molecule or an enzymatic nucleic acid molecule, that modulates expression of a nucleic acid molecule encoding HERA, K-Ras, H-Ras, N-man immunodeficiency virus (HIV) or a component of HIV. The nucleic acid molecule of the invention has cytostatic, anti-HIV, and anti-rheumatic activity. The nucleic acid molecules are useful for reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are also useful for treating breast, ovarian, colorectal, lung, prostate, bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences shown in ABZ65217 - ABZ66538 - ABZ66539 - ABZ66539 - ABZ66539 approsent human ribozymes of incomplete.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel short interfering RNA and enzymatic nucleic acid useful for treating cancer, modulates the expression of a nucleic acid encoding HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences
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                                                                                                                                              Sequence 29
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enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
anti-rheumatic; cancer; AIDS; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel short interfering RNA and enzymatic nucleic acid useful for treating cancer, modulates the expression of a nucleic acid encoding HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences -
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06-JUN-2001; 2001US-296249P.
10-SEP-2001; 2001US-318471P.
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                    Human HIV enzymatic nucleic acid
                                                                  21-MAR-2003
                                                                                                           ABZ66651;
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ABZ66652
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29-MAY-2002; 2002WO-US16840.
                                           05-DEC-2002.
                                                                                       WO200297114-A2
                                                                                                                              Homo sapiens
                                                                                                                                                                           anti-rheumatic;
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The invention relates to a novel short interfering RNA (siRNA) nucleic acid molecule or an enzymatic nucleic acid molecule, that modulates expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras, human immunodeficiency virus (HIV) or a component of HIV. The nucleic acid molecule of the invention has cytostatic, anti-HIV, and anti-rheumatic activity. The nucleic acid molecules are useful for reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are also useful for treating breast, overian, colorectal, lung, prostate, bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences shown in ABZ62217 - ABZ64543, ABZ65532 - ABZ65519, ABZ66525 - ABZ66529, ABZ66529, ABZ66528 - ABZ66529, ABZ66529, ABZ66528 - ABZ66529, ABZ66529
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                                                      Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras; enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
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06-JUN-2001; 2001US-296249P.
10-SEP-2001; 2001US-318471P.
                                                                                                                                                                                                                                     Human HIV enzymatic nucleic acid #4.
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                                                                                                                                                                                                                                                                                                                                                        (first entry)
cancer; AIDS;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 15.6;
Pred. No. 35;
                  88.
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ARESULT 23
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ID ABZ66653
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 122; Page 159; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel short interfering RNA and enzymatic nucleic acid useful treating cancer, modulates the expression of a nucleic acid or HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequence
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06-JUN-2001;
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                                                                                                                                                                                29-MAY-2001; 2001US-294140P.
06-JUN-2001; 2001US-296249P
10-SEP-2001; 2001US-318471P
                             WPI; 2003-140484/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  anti-rheumatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human
                                                                         Mcswiggen
                                                                                                                                                                                                                                                                                    29-MAY-2002; 2002WO-US16840
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                                                                                                                               (RIBO-) RIBOZYME
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HIV enzymatic nucleic acid #5.
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; 2001US-296249P.
; 2001US-318471P.
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                                                                                                                                    PHARM INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       88.
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The sequences shown in ABZ62217 - ABZ64543, ABZ65532 - ABZ65519,
                                                                                                                                                                                                                                                                                                                                            nair 1088; atrichia; hair growth; hirsutism; catalytic nucleic acid; ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozyme; catalytic core; cleavage site; pharmaceutical; hair production; hair follicle; anagen phase; catagen phase, hair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel short interfering RNA and enzymatic nucleic acid useful for treating cancer, modulates the expression of a nucleic acid encoding HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences
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                                                                                                                                                                                                                                                                                                   Synthetic.
                                                                                                                                                                                                                                                                                                                                      depilatory.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABZ66525
                                                                                                                                                                                     24-OCT-2002
                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                    Christiano
                                                                                                                                   13-APR-2001;
                                                                                                                                                           12-APR-2002; 2002WO-US11683
                                                                                                                                                                                                              WO200283891-A2
                                                                                                           (UYCO ) UNIV COLUMBIA NEW YORK
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                                                           2003-093020/08
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard;
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                                                                                    AM
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                                                                                                                                   2001US-283618P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7 A;
                                                                                                                                                                                                                                                                                                                                                                                                                         cleaving hairless protein mRNA after nucleotide 1594.
                                                                                                                                                                                                                                                              Location/Qualifiers 8..22
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/note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA;
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                                                                                                                                                                                                                                       "Catalytic domain"
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Pred. No. 3
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New catalytic nucleic acid molecule that specifically cleaves Hairless Protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase to catagen phase

Claim 3;

Page

34; discloses

65pp; English.

a new catalytic DNA or RNA molecule that

invention

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RESULT 25
ABX13989
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CC which comprises a catalytic domain that cleaves mRNA at a defined
CC consensus sequence and binding domains contiguous with the 5' and 3' ends
CC of the catalytic domain. Lack of expression of the hairless gene due to
CC inherited mutations leads to the complete loss of hair, known as
CC atrichia. Abundant hair growth, hirsutism, can be improved by inhibiting
CC the genes promoting hair growth, and one way to get targeted, transient
CC gene suppression is through the use of catalytic nucleic acid technology,
CC including ribozymes and DNAzymes. Ribozymes are RNA structures which have
CC aself-catalytic enzymatic function and sequence specific RNA binding
CC ability. Small DNA oligonucleotides that have a similar structure to the
CC definity. Small DNA oligonucleotides that have a similar structure to the
CC catalytic core and two sequence specific arms. The deoxy-ribozymes have
CC degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids
CC degrade, in vivo, that hammerhead ribozymes. The catalytic mucleic acids
CC degrade, in vivo, that hammerhead ribozymes for inhibiting hair production
CC by a hair-producing cell, for inhibiting hair growth and for inhibiting
CC the transition of a hair follicle from the anagen phase to the catagen
CC the phase. A non-human transgenic mammal is useful as model for testing
CC expression. The sequence presented is the deoxy-ribozyme that cleaves the
CC the phase in the products which function by inhibiting hairless protein
CC the phase in the product of the presented is the deoxy-ribozyme that cleaves the
CC the phase in the product of the presented is the deoxy-ribozyme that cleaves the
CC the production by inhibiting hairless protein
CC the production by inhibiting hairless protein
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Best Local :
                                                       13-APR-2001; 2001US-283618P.
                                                                                                12-APR-2002;
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                                                                                                                                                                                                                                                               misc_feature
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                                                                                                                                                                                                                                                                                                                                                                                         depilatory.
                                                                                                                                                                                                                                                                                                                                                                                                      ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozyme; catalytic core; cleavage site; pharmaceutical; hair production; hair follicle; anagen phase; catagen phase; hair removal product;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Catalytic DNA; catalytic RNA; hairless protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Deoxy-ribozyme, cleaving hairless protein mRNA after nucleotide 1597
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        hair loss;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human hairless protein mRNA immediately after nucleotide 1594.
                   (UYCO ) UNIV COLUMBIA NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        atrichia;
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                                                                                                2002WO-US11683
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93.8%;
                                                                                                                                                                                                                      "Catalytic domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    growth; hirsutism; catalytic nucleic acid;
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Pred. No. 35;
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CC which comprises a catalytic domain that cleaves mRNA at a defined CC consensus sequence and binding domains contiguous with the 5' and 3' ends CC consensus sequence and binding domains contiguous with the 5' and 3' ends CC of the catalytic domain. Lack of expression of the hairless gene due to CC inherited mutations leads to the complete loss of hair, known as a trichia. Abundant hair growth, hirsutism, can be improved by inhibiting CC the genes promoting hair growth, and one way to get targeted, transient CC gene suppression is through the use of catalytic nucleic acid technology. CC including ribozymes and DNAzymes. Ribozymes are RNA structures which have a self-catalytic enzymatic function and sequence specific RNA binding CC ability. Small DNA oligonucleotides that have a similar structure to the catalytic core and two sequence specific arms. The deoxy-ribozymes have CC more lenient consensus cleavage site requirements and are less likely to degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids are useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting the transition of a hair follicle from the anagen phase to the catalgen phase. A non-human transgenic mammal is useful as a model for testing hair removal products which function by inhibiting hairless protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New catalytic nucleic acid molecule that specifically cleaves Hairless protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
Sequence 29 BP; 7 A; 9 C; 10 G; 3 T; 0 other;
                                                    expression. The sequence presented is the deoxy-ribozyme that cleaves the human hairless protein mRNA immediately after nucleotide 1597.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention discloses a new catalytic DNA or RNA molecule that specifically cleaves, or inhibits expression of, Hairless Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 3; Page 34; 65pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-093020/08.
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Best Local S
Matches 15
                                                                                                                                   Catalytic DNA; catalytic RNA; hairless protein; ss; hair loss; atrichia; hair growth; hisutism; catalytic nucleic acid; ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozyme; catalytic core; cleavage site; pharmaceutical; hair production; hair follicle; anagen phase; catagen phase; hair removal product;
                                                     misc_feature
                                                                                       Synthetic.
                                                                                                                        depilatory.
                                                                                                                                                                                                      Deoxy-ribozyme,
                                                                                                                                                                                                                              25-FEB-2003 (first entry)
                                                                                                                                                                                                                                                                         ABX13990 standard; DNA; 29
                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                               15;
                                                                                                                                                                                                                                                                                                                                  7
                                                                                                                                                                                                                                                                                                                                                        1 RGGCTAGCTACAACGA 16
                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                  AGGCTAGCTACAACGA 22
                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                       cleaving hairless protein mRNA after nucleotide 1641.
                                                     Location/Qualifiers
8..22
                                                                                                                                                                                                                                                                                                                                                                                         93.8%;
                                                                                                                                                                                                                                                                                                                                                                                                     97.5%;
                                 "Catalytic domain"
                                                                                                                                                                                                                                                                           먬
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                                                                                                                                                                                                                                                                                                                                                                                                     Score 15.6;
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                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                     DB 25;
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WO200283891-A2

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
Synthetic.
                                                       depilatory.
                                                                    ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozyme; catalytic core; cleavage site; pharmaceutical; hair production; hair follicle; anagen phase; catagen phase; hair removal product;
                                                                                                                                Catalytic DNA;
hair loss; atri
                                                                                                                                                                                       Deoxy-ribozyme,
                                                                                                                                                                                                                            25-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          consensus sequence and binding domains contiguous with the 5' and 3' ends of the catalytic domain. Lack of expression of the hardness.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New catalytic nucleic acid molecule that specifically cleaves Hairless Protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
                                                                                                                                                                                                                                                                  ABX13991
                                                                                                                                                                                                                                                                                                       ABX13991 standard; DNA; 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 3; Page 34; 65pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    to catagen phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-093020/08.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                specifically cleaves, or inhibits expression of, Hairles which comprises a catalytic domain that cleaves mRNA at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                   RGGCTAGCTACAACGA 16
                                                                                                                                                                                                                                                                                                                                                                                                    AGGCTAGCTACAACGA 22
                                                                                                                              DNA; catalytic RNA; hairless protein; ss; atrichia; hair growth; hirsutism; cataly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BP; 7 A; 11 C; 7 G; 4 T; 0 other;
                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         discloses
                                                                                                                                                                                     cleaving hairless protein mRNA after nucleotide 1698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a new catalytic DNA or RNA molecule that
                                                                                                                                                                                                                                                                                                       ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 15.6;
Pred. No. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB
                                                                                                                                catalytic nucleic acid;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
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                                                                                                                                                                                   ABX13992
                                                                                                                                                                                                      RESULT 28
                                                                                                                                                                                                                                                                                                                                                                                                                                  CC specifically cleaves, or inhibits expression of, Hairless Protein mRNA CC which comprises a catalytic domain that cleaves mRNA at a defined CC consensus sequence and binding domains contiguous with the 5' and 3' ends CC inherited mutations leads to the complete loss of hair, known as CC inherited mutations leads to the complete loss of hair, known as CC attrichia. Abundant hair growth, hirsuitism, can be improved by inhibiting CC gene suppression is through the use of catalytic nucleic acid technology. CC including ribozymes and DNAzymes. Ribozymes are RNA structures which have CC a self-catalytic enzymatic function and sequence specific RNA binding CC ability. Small DNA oligonucleotides that have a similar structure to the CC hammerhead ribozyme, called deoxy-ribozymes or DNAzymes, having a CC catalytic core and two sequence specific arms. The deoxy-ribozymes have CC catalytic core and two sequence specific arms. The deoxy-ribozymes have catalytic core and two sequence specific arms. The deoxy-ribozymes have catalytic core and two sequence specific arms. The deoxy-ribozymes have catalytic core and two sequence specific arms. The deoxy-ribozymes have catalytic core and two sequence specific arms. The deoxy-ribozymes have catalytic core and two sequence specific arms. The deoxy-ribozymes have catalytic core and two sequence specific arms. The deoxy-ribozymes have core lenient consensus cleavage site requirements and are less likely to care useful in whormaceirions for inhibiting have recalmented acids.
                                                                                                                                                                                                                                                                                                                                                 Matches
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                are useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting the transition of a hair follicle from the anagen phase to the catagen phase. A non-human transgenic mammal is useful as a model for testing hair removal products which function by inhibiting hairless protein expression. The sequence presented is the deoxy-ribozyme that cleaves the human hairless protein mRNA immediately after nucleotide 1698.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New catalytic nucleic acid molecule that specifically cleaves Hairless Protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 3; Page 34; 65pp; English.
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                                                                                                                                                           ABX13992 standard; DNA;
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                                                                                                                                                                                                                                                                                                                                                 15;
                                                                                                                                                                                                                                                                                                                                                                        Similarity
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/note= "Catalytic domain"
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                                                                                                                                                                                                                                                                                                                                                                                                                                A;
                                                                                                                                                                                                                                                                                                                                                                                                                                7 C;
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5
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Pred. No. 3
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Catalytic DNA; catalytic RNA; hairless protein;

Deoxy-ribozyme, cleaving hairless protein mRNA after nucleotide 1732

25-FEB-2003

(first entry)

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RESULT 29
ABX13993
ID ABX13
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                                                                                                                                                                                                                                                          CC inherited mutations leads to the complete loss of hair, known as complete loss of hair, known as a trichia. Abundant hair growth, hirsutism, can be improved by inhibiting the genes promoting hair growth, hirsutism, can be improved by inhibiting the gene suppression is through the use of catalytic nucleic acid technology, including ribozymes and DNAzymes. Ribozymes apecific RNA binding complete including ribozymes and DNAzymes. Ribozymes appecific RNA binding complete including ribozymes and DNAzymes. Ribozymes or DNAzymes, which have a self-catalytic small DNA oligonucleotides that have a similar structure to the hammerhead ribozyme, called deoxy-ribozymes or DNAzymes, having a contalytic core and two sequence specific arms. The deoxy-ribozymes have compensus cleavage site requirements and are less likely to degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids are useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting the transition of a hair follicle from the anagen phase to the catagen compasses. A non-human transgenic mammal is useful as a model for testing chair removal products which function by inhibiting hairless protein expression. The sequence presented is the deoxy-ribozyme that cleaves the human hairless protein mRNA immediately after nucleotide 1732.
                                                                                                                                                                           Query Match
Best Local Similarity
Matches 15; Conserv
ABX13993 standard; DNA; 29 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New catalytic nucleic acid molecule that specifically cleaves Hairless Protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         specifically cleaves, or inhibits expression of, Hairless Protein mRNA which comprises a catelytic domain that cleaves mRNA at a defined consensus sequence and binding domains contiguous with the 5' and 3' ends of the catalytic domain. Lack of expression of the hairless gene due to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention discloses a new catalytic DNA or RNA molecule that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 3; Page 34; 65pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   hair loss; atrichia; hair growth; hirsutism; catalytic nucleic acid; ribozyme; bNAzyme; self-catalytic; hammerhead ribozyme; decay-ribozyme; catalytic; hammerhead ribozyme; decay-ribozyme; catalytic; core; cleavage site; pharmaceutical; hair production; hair follicle; anagen phase; catagen phase; hair removal product;
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                                                                                                                      RGGCTAGCTACAACGA 16
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                                                                                                                                                                                                                                                          BP; 6
                                                                                                                                                                             Conservative
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                                                                                                                                                                                            97.5%;
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                                                                                                                                                                                                                                                          8 G;
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Pred. No. 35;
1; Mismatches
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The invention discloses a new catalytic DNA or RNA molecule that CC specifically cleaves, or inhibits expression of, Hairless Protein mRNA CC which comprises a catalytic domain that cleaves mRNA at a defined CC consensus sequence and binding domains contiguous with the 5' and 3' ends of the catalytic domain. Lack of expression of the hairless gene due to cinherited mutations leads to the complete loss of hair, known as CC atrichia. Abundant hair growth, hirsutism, can be improved by inhibiting the genes promoting hair growth, and one way to get targeted, transient CC gene suppression is through the use of catalytic nucleic acid technology, CC including ribozymes and DNAzymes. Ribozymes are RNA structures which have CC self-catalytic enzymatic function and sequence specific RNA binding CC ability. Small DNA oligonucleotides that have a similar structure to the hammerhead ribozyme, called decay-ribozymes or DNAzymes, having a CC atalytic core and two sequence specific arms. The deoxy-ribozymes have CC more lenient consensus cleavage site requirements and are less likely to CC degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids are useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting that removal products which function by inhibiting hairless protein CC expression. The sequence presented is the deoxy-ribozyme that cleaves the CC human hairless protein mRNA immediately after nucleotide 1750.
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"Catalytic domain"
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Query Match Best Local Matches

. Similarity

Conservative

97.5%; 93.8%; 9 C; 7

Length Indels

0

Gaps

0

Sequence

29

BP;

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G; 5 T; 0 other; Score 15.6; Pred. No. 35 Mismatches 35; DB 25; 0

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GGGCTAGCTACAACGA 22 RGGCTAGCTACAACGA 16

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RESULT 30
ABX13994
  CC The invention discloses a new catalytic DNA or RNA molecule that CC specifically cleaves, or inhibits expression of, Hairless Protein mRNA CC which comprises a catalytic domain that cleaves mRNA at a defined CC consensus sequence and binding domains contiguous with the 5 and 3 ends CC of the catalytic domain. Lack of expression of the hairless gene due to CC inherited mutations leads to the complete loss of hair, known as CC atrichia. Abundant hair growth, hirsutism, can be improved by inhibiting CC the genes promoting hair growth, and one way to get targeted, transient CC gene suppression is through the use of catalytic nucleic acid technology, CC including ribozymes and DNAzymes. Ribozymes are RNA structures which have a self-catalytic enzymatic function and sequence specific RNA binding CC ability. Small DNA oligonuclectides that have a similar structure to the CC degrade, in vivo, that hammerhead ribozymes or DNAzymes, having a CC catalytic core and two sequence specific arms. The deoxy-ribozymes have more lenient consensus cleavage site requirements and are less likely to CC degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids are useful in pharmaceutical compositions for inhibiting hair production by a hair-producting cell, for inhibiting hair growth and for inhibiting the transition of a hair folicie from the anagen phase to the catagen CC hair removal products which function by inhibiting hair products the carenter the segment of in the denoy-ribozyme the carenter the segment of in the denoy-ribozyme.
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deoxy-ribozyme that cleaves the
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ABX13995
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RESULT 31
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                       specifically cleaves, or inhibits expression of, Hairless Protein mRNA which comprises a catalytic domain that cleaves mRNA at a defined consensus sequence and binding domains contiguous with the 5' and 3' ends of the catalytic domain. Lack of expression of the hairless gene due to inherited mutations leads to the complete loss of hair, known as atrichia. Abundant hair growth, hirsutism, can be improved by inhibiting the genes promoting hair growth, and one way to get targeted, transient gene suppression is through the use of catalytic nucleic acid technology, including ribozymes and DNAzymes. Ribozymes are RNA structures which have a self-catalytic enzymatic function and sequence specific RNA binding ability. Small DNA oligonucleotides that have a similar structure to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Catalytic DNA; catalytic RNA; hairless protein; ss; hair loss; atrichia; hair growth; hirsutism; catalytic nucleic acid; ribozyme; bNAzyme; self-catalytic; harmerhead ribozyme; deoxy-ribozyme; catalytic core; cleavage site; pharmaceutical; hair production; hair follicle; anagen phase; catagen phase; hair removal product;
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catalytic
                                                                                                                                                                                                                            Claim 3; Page 35; 65pp; English.
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                 called deoxy-ribozymes or DNAzymes,
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"Catalytic domain"
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                       specifically cleaves, or inhibits expression of, Hairless Protein which comprises a catalytic domain that cleaves mRNA at a defined consensus equence and binding domains contiguous with the 5' and of the catalytic domain. Lack of expression of the hairless gene of the catalytic domain.
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                                                                                                                                                    The invention discloses a new catalytic DNA or RNA molecule that
                                                                                                                                                                                                                       Claim 3; Page 35; 65pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                        catagen phase
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cleaving hairless protein mRNA after nucleotide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Catalytic domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.
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Pred. No. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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                                                     and 3' ends
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                              due
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RESULT 33
ABX13997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CC the genes promoting hair growth, hirsutism, can be improved by inhibiting the genes promoting hair growth, and one way to get targeted, transient CC gene suppression is through the use of catalytic nucleic acid technology, CC including ribozymes and DNAzymes. Ribozymes are RNA structures which have CC ability. Small DNA oligonucleotides that have a similar structure to the CC hammerhead ribozyme, called decay-ribozymes or DNAzymes, having a CC catalytic core and two sequence specific arms. The decay-ribozymes have more lenient consensus cleavage site requirements and are less likely to CC degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids are useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting CC the transition of a hair follicle from the anagen phase to the catagen CC phase. A non-human transgenic mammal is useful as a model for testing CC hair removal products which function by inhibiting hairless protein CC catalytics protein mRNAA immediately after nucleotide 2028.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                         New catalytic nucleic acid molecule that specifically cleaves Hairless Protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                hair loss; atrichia; hair growth; hirsutism; catalytic nucleic acid; ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozy catalytic core; cleavage site; pharmaceutical; hair production;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABX13997 standard;
               to catagen phase
                                                                                           WPI; 2003-093020/08.
                                                                                                                             Christiano AM
                                                                                                                                                                                         13-APR-2001; 2001US-283618P.
                                                                                                                                                                                                                                                        24-OCT-2002
                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Catalytic DNA; catalytic RNA; hairless protein; ss;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Deoxy-ribozyme,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-FEB-2003
                                                                                                                                                                                                                       12-APR-2002; 2002WO-US11683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  follicle; anagen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15;
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                                                                                                                                                            UNIV COLUMBIA NEW YORK.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cleaving hairless protein mRNA after nucleotide
                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers 8..22
                                                                                                                                                                                                                                                                                                                                     /*tag=
                                                                                                                                                                                                                                                                                                                        /note= "Catalytic domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  phase; catagen phase; hair removal product;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 15.6;
Pred. No. 35
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            35;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     deoxy-ribozyme;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2033.
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which comprises a Calcalytic domain. Like Coleves make to consensus sequence and binding domains contiguous with the 5' and 3' ends of the catalytic domain. Lack of expression of the hairless gene due to inherited mutations leads to the complete loss of hair, known as atrichia. Abundant hair growth, hirsuitism, can be improved by inhibiting the genes promoting hair growth, and one way to get targeted, transient gene suppression is through the use of catalytic nucleic acid technology, including ribozymes and DNAzymes. Ribozymes are RNA structures which have a self-catalytic enzymatic function and sequence specific RNA binding abbility. Small DNA oligonucleotides that have a similar structure to the hammerhead ribozyme, called deoxy-ribozymes of DNAzymes, having a have

specifically cleaves, or inhibits expression of, Hairless Protein which comprises a catalytic domain that cleaves mRNA at a defined The invention discloses a new catalytic DNA or RNA molecule that

Protein

mRNA

65pp; English

are useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting the transition of a hair follicle from the anagen phase to the catagen phase. A non-human transgenic mammal is useful as a model for testing hair removal products which function by inhibiting hairless protein expression. The sequence presented is the deoxy-ribozyme that cleaves the human hairless protein mRNA immediately after nucleotide 2033.

hammerhead ribozyme, called deoxy-ribozymes or DNAzymes, having a catalytic core and two sequence specific arms. The deoxy-ribozymes have more lenient consensus cleavage site requirements and are less likely to degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids

Matches Query Match Best Local

Local 15;

Similarity 93.8 15; Conservative

1;

Indels Length

0

Gaps

0

97.5%;

Score 15.6; Pred. No. 3 Mismatches

BB 25; 0,

29;

Sequence

29

BP; 7 A; 5 C; 13 G; 4 T; 0 other;

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                                                                                                                                                                                                     ribozyme; atrichia; hair growth; provern; 88; ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozyme; catalytic core; cleavage site; pharmaceutical; hair production; hair follicle; anagen phase; catagen phase.
                                                                                                                                                                                                                                                                                        25-FEB-2003
                                                                                                                                                                                                                                                                   Deoxy-ribozyme, cleaving hairless protein mRNA after nucleotide 2047
                                                                                                                                                                                                                                                                                                                              ABX13998 standard; DNA; 29
Christiano
                                                                                                                                      misc_feature
                                                                                                                                                                   Synthetic.
                                     13-APR-2001; 2001US-283618P.
                                                                           24-OCT-2002
                                                                                                WO200283891-A2
                  (UYCO ) UNIV COLUMBIA NEW YORK
                                                         12-APR-2002; 2002WO-US11683
                                                                                                                                                                             Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                               GGGCTAGCTACAACGA 22
                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                Location/Qualifiers
                                                                                                                   /note= "Catalytic domain"
                                                                                                                             *tag=
                                                                                                                                                                                                                                                                                                                                 ВP
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24-OCT-2002.

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RESULT 35
ABX1399
ID ABX13
XX ABX13
XX DEOXY
XX Catal
XW 
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            specifically cleaves, or inhibits expression of, Hairles which comprises a catalytic domain that cleaves mRNA at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 to catagen phase
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 29 BP; 9 A;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Catalytic DNA; catalytic RNA; hairless protein; ss;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABX13999 standard; DNA; 29 BP
                                                                                                                                                                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                      depilatory.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Deoxy-ribozyme,
                                                                          WO200283891-A2
                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ssion. The sequence presented is the deoxy-ribozyme that cleaves the hairless protein mRNA immediately after nucleotide 2047.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
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cleaves, or inhibits expression of, Hairless Protei
                                                                                                                                                                                                                         Location/Qualifiers
8..22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cleaving hairless protein mRNA after nucleotide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        hair growth; hirsutism; catalytic nucleic acid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97.5%;
                                                                                                                                                 "Catalytic domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 15.6;
Pred. No. 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25;
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X#X#X#X#X#X#######X#X920202020202020202020202020
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CC of the catalytic domain. Lack of expression of the hairless gene due to conherited mutations leads to the complete loss of hair, known as catalytic domain hair growth, hirsuitsm, can be improved by inhibiting the genes promoting hair growth, and one way to get targeted, translent gene suppression is through the use of catalytic nucleic acid technology, including ribozymes and DNAzymes. Ribozymes are RNA structures which have a self-catalytic enzymatic function and sequence specific RNA binding catality. Small DNA oligonucleotides that have a similar structure to the chammerhead ribozyme, called deoxy-ribozymes or DNAzymes, having a catalytic core and two sequence specific arms. The deoxy-ribozymes have come lenient consensus cleavage site requirements and are less likely to degrade, in vivo, that hammerhead ribozymes. The catalytic nucleic acids are useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting the transition of a hair follicle from the anagen phase to the catagen catalyte endeaves which function by inhibiting hairless protein the expression. The sequence presented is useful as a model for testing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
                                                                                    hair loss; atrichia; hair growth; hirsutism; catalytic nucleic acid; ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozyme; catalytic core; cleavage site; pharmaceutical; hair production; hair follicle; anagen phase; catagen phase; hair removed
                Homo sapiens
Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                specifically cleaves, or inhibits expression of, Hairless Protein which comprises a catalytic domain that cleaves mRNA at a defined
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 3; Page 35; 65pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New catalytic nucleic acid molecule that specifically cleaves Hairless Protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
                                                                      depilatory.
                                                                                                                                                                   Catalytic DNA; catalytic RNA; hairless protein; ss;
                                                                                                                                                                                                           Deoxy-ribozyme,
                                                                                                                                                                                                                                                  25-FEB-2003
                                                                                                                                                                                                                                                                                        ABX14001;
                                                                                                                                                                                                                                                                                                                          ABX14001 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              consensus sequence and binding domains contiguous with the 5' and 3' ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 to catagen phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-093020/08.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Christiano
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-APR-2002; 2002WO-US11683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     human hairless protein mRNA immediately after nucleotide 2083.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      invention discloses a new catalytic DNA or RNA molecule that
                                                                                                                                                                                                                                                                                                                                                                                                                           7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 RGGCTAGCTACAACGA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            UNIV COLUMBIA NEW YORK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                         GGGCTAGCTACAACGA 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP; 9 A; 7 C; 9 G; 4 T; 0 other;
                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                         cleaving hairless protein mRNA after nucleotide 2380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97.5%;
                                                                                                                                                                                                                                                                                                                            29
                                                                                                                                                                                                                                                                                                                            ₽₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 15.6;
Pred. No. 35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29;
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RESULT 37 ABX14002

ABX14002 standard; DNA; 29

밁 S

7 ۳

22

RGGCTAGCTACAACGA 16 AGGCTAGCTACAACGA

Matches Query Match Best Local

15;

Conservative

Similarity

93.8%; 97.5%;

Score 15.6; Pred. No. 3 Mismatches 35;

DB 25;

0;

Indels Length

0

Gaps

0

(first entry)

Deoxy-ribozyme, 25-FEB-2003 ABX14002

cleaving hairless protein mRNA after nucleotide

2395

Catalytic DNA; catalytic RNA; hairless protein; ss; hair loss; atrichia; hair growth; hirsutism; cataly

catalytic nucleic acid;

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CC specifically cleaves, or inhibits expression of, Hairless Protein mRNA CC which comprises a catalytic domain that cleaves mRNA at a defined CC consensus sequence and binding domains contiguous with the 5' and 3' ends CC of the catalytic domain. Lack of expression of the hairless gene due to CC inherited mutations leads to the complete loss of hair, known as CC atrichia. Abundant hair growth, hirsutism, can be improved by inhibiting CC the genes promoting hair growth, and one way to get targeted, transient CC gene suppression is through the use of catalytic nucleic acid technology, including ribozymes and DNAzymes. Ribozymes are RNA structures which have a self-catalytic enzymatic function and sequence specific RNA binding CC ability. Small DNA oligonucleotides that have a similar structure to the hammerhead ribozyme, called deoxy-ribozymes or DNAzymes, having a CC catalytic core and two sequence specific arms. The deoxy-ribozymes have catalytic core and two sequence specific arms. The deoxy-ribozymes have useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting the transition of a hair follicle from the anagen phase to the catagen CC hair removal products which function by inhibiting hairless protein CC expression. The sequence presented is the deoxy-ribozyme that cleaves the human hairless protein mRNA immediately after nucleotide 2380.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New catalytic nucleic acid molecule that specifically cleaves Hairless Protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
Sequence 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 3; Page 35; 65pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-093020/08.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   to catagen phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Christiano AM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (UYCO ) UNIV COLUMBIA NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-APR-2001; 2001US-283618P.
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₿P;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 discloses a new catalytic DNA or RNA molecule that
6 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "Catalytic domain"
10 C; 8 G; 5 T; 0 other;
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Consensus sequence and binding domains contiguous with the 5' and 3' ends CC of the catalytic domain. Lack of expression of the hairless gene due to CC inherited mutations leads to the complete loss of hair, known as CC atrichia. Abundant hair growth, hirsutism, can be improved by inhibiting CC gene suppression is through the use of catalytic nucleic acid technology, CC including ribozymes and DNAzymes. Ribozymes are RNA structures which have CC including ribozymes and DNAzymes, Ribozymes are RNA structures which have CC as self-catalytic enzymatic function and sequence specific RNA binding CC ability. Small DNA oligonucleotides that have a similar structure to the hammerhead ribozyme, called deoxy-ribozymes or DNAzymes, having a CC catalytic core and two sequence specific arms. The deoxy-ribozymes have CC catalytic core and two sequence specific arms. The deoxy-ribozymes have CC catalytic core and two sequence specific arms. The deoxy-ribozymes have compared, in vivo, that hammerhead ribozymes. The catalytic nucleic acids are useful in pharmaceutical compositions for inhibiting hair production by a hair-producing cell, for inhibiting hair growth and for inhibiting the transition of a hair follicle from the anagen phase to the catagen catalytic nucleic acids are removal products which function by inhibiting hairless protein CC hair removal products which function by inhibiting hairless protein CC human hairless protein mRNA immediately after nucleotide 2395.
                                                                                                                                   Query Match
Best Local S
Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New catalytic nucleic acid molecule that specifically cleaves Hairless protein mRNA, useful for inhibiting hair production by a hair-producing cell, or for inhibiting transition of a hair follicle from anagen phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention discloses a new CatalyTic LINA of ANA INVALUATION MRNA specifically cleaves, or inhibits expression of, Hairless Protein mRNA which comprises a catalytic domain that cleaves mRNA at a defined which comprises a catalytic domain to continuous with the 5' and 3' elements.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 3; Page 35; 65pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-093020/08.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       depilatory.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ribozyme; DNAzyme; self-catalytic; hammerhead ribozyme; deoxy-ribozyme; catalytic core; cleavage site; pharmaceutical; hair production; hair follicle; anagen phase; catagen phase; hair removal product;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     to catagen phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (UYCO') UNIV COLUMBIA NEW YORK.
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                                                                                                                                                                                                                                                                          Sequence 29
                                                                                                                                   15;
7
                                                                 μ
                                                                                                                                                                           Similarity
                                                                 RGGCTAGCTACAACGA 16
GGGCTAGCTACAACGA
                                                                                                                                                                                                                                                                              BP; 9 A; 9 C; 8 G; 3 T; 0 other;
                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers 8..22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /*tag=
                                                                                                                                                                97.5%;
93.8%;
22
                                                                                                                                   ب
••
                                                                                                                                                                           Score 15.6;
Pred. No. 35;
                                                                                                                                          Mismatches
                                                                                                                                                                                                                DB
                                                                                                                                                                                                            25;
                                                                                                                                       0
                                                                                                                                                                                                         Length
                                                                                                                                          Indels
                                                                                                                                                                                                                    29;
                                                                                                                                          0
                                                                                                                                          Gaps
                                                                                                                                          0
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AAA14525/c ID AAA14525 : XX

standard; DNA; 30

ВP

RESULT 39
AAZ87648
ID AAZ87
XX
AC AAZ87
XX
OT 09-MP

AAZ87648;

AAZ87648 standard; DNA; 30

₽P

09-MAY-2000

(first entry)

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RESULT 38

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CC gene, and a sequence of interest which produces a RNA template from the reverse transcriptase synthesises cDNA of a specified sequence. CC which the reverse transcriptase synthesises cDNA of a specified sequence. CC taking advantage of the stem-loop structure of the cDNA, which forms as CC a result of the inclusion of a inverted tandem repeat that allows the scDNA to fold back on itself, forming a double stranded DNA stem, in CC sequence of interest. The double-stranded stem contains one or more functional genetic elements (GB), adapted for incorporation into a vector CC for delivery to a cell. The vectors are is useful for producing a sbDNA CC sequence of interest, particularly a cDNA transcript, an inhibitory mucleic acid molecule which is an antisense sequence or aptamer, an meNA CC transcript and a heteroduplex molecule. Inhibitory nucleic acid molecules to a target cell are useful for alleviating pathological conditions by regulating gene expression. The present oligonucleotide was used to cc produce a vector for use in the course of the invention.
                                                                                                       Query Match
Best Local S
Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-OCT-1998;
16-SEP-1999;
04-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The specification describes methods for producing single-stranded cDNA (sscDNA) in eukaryotic cells. They use a DNA cassette that produces sscDNA in vivo. The cassette contains the Moloney murine leukemia virus reverse transcriptase/RNase H, a bacterial restriction endonuclease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genetic element for producing and delivering single-stranded DNA, comprises a gene encoding reverse transcriptase and a sequence of interest flanked by an inverted tandem repeat and primer binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Oligonucleotide 5'-polyNM-gaglink-(Pleio)-DNase-1023-B/P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Reverse transcriptase; RNase H; stem-loop structure; genetic element; inverted tandem repeat; vector; inhibitory nucleic acid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAA14525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-317974/27.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conrad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-APR-2000.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-AUG-2000
                                                                                                                                                                                                                           Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-OCT-1999;
24
                                                     \vdash
                                                                                                             15;
                                                                                                                                           Similarity
                                RGGCTAGCTACAACGA 16
  AGGCTAGCTACAACGA
                                                                                                                                                                                                                              30 BP;
                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
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99US-0397782.
99US-0169793.
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                                                                                                                                                                                                                              A; 8 C; 8
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                                                                                                                                     97.5%;
93.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            77pp; English.
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RESULT 40
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                                                                                                                                                                                                                                                                                                                                                                                                        The invention provides novel modified ribozymes that have 3 or more pyrimidine nucleotides (PMN) in the ribozyme modified at the 2'-position, CC where the PMNs are modified to 2'-amino PMNs and the ribozymes exhibit improved stability to RNAsee degradation and exhibits 85% or more CC improved stability to RNAsee degradation and exhibits 85% or more CC invention are selected from rat and human protein kinase C (PKC) alpha Cribozymes, rumour necrosis factor (TMP) alpha ribozyme, rat and human CC ribozymes, tumour necrosis factor (VEGP) ribozymes. These ribozymes can CC be used for treating or preventing a disease or condition responsive to CC an alteration in the expression of a gene, where the ribozyme is capable CC creating or preventing a disease or condition associated with the CC proliferation of rapidly dividing cells, e.g. cancer such as malignant CC ploma. They can also be used for inhibiting the proliferation of cells. The use of 2'-amino modified pyrimidine can provide ribozyme of improved CC stability which retain the activity of the unmodified ribozyme. The
                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
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(DZIE/)
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 stem-loop; c-myc; viral gene;
endogenous target nucleic aci
site-directed mutagenesis; ce
                                 stem-loop;
                                                    ODN; oligodeoxynucleotide; inverted tandem repeat; primer binding site;
                                                                                   Synthetic oligodeoxynucleotide 5'-polyNM-gaglink-(Pleio)-DNAse-1023-B/P.
                                                                                                                    18-JUL-2001
                                                                                                                                                     AAS02302;
                                                                                                                                                                                    AAS02302 standard; cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 9; 93pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel ribozymes, used for inhibiting the proliferation of cells, e.g
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                                                                                                                                                                                                                                                                                                                                                                                                                                        sequence represents a human short PKCalpha DNA ribozyme
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                 ene; gene therapy; reverse transcriptio
acid; gene inactivation; RNA splicing;
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Query Match Best Local S Matches 15

Similarity

97.5%;

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15; ш

Conservative

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Mismatches ŏ.

RGGCTAGCTACAACGA 16 AGGCTAGCTACAACGA

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target cell produces an RNA template which is reverse transcribed to produce ss-cDNA of a specified sequence. The ss-cDNA folds back on itself as a result of the inverted tandem repeat, to form a stem-loop structure. The loop is comprised of the sequence of interest. The cDNA transcript is bound to an endogenous nucleic acid target to alter expression of the target sequence. This method is useful for altering the expression of gene products e.g. c-myc or a viral gene product. It may be applied to gene therapy, with target genes mutated or introduced for therapeutic purposes, such as gene inactivation using duplex or triplex binding of nucleic acids, site-directed mutagenesis, interruption of cellular function by binding to specific cellular proteins and interfering with
                                                                                                                                                                                                                                                              The sequence represents a synthetic single stranded cDNA. This DNA in a target cell and is transfected with a cassette comprising a sof interest flanked by inverted tandem repeats (ITR) and a primer site (PBS) 3' to the tandem repeat. Transcription of the cassette
Sequence 30 BP; 5 A; 8 C; 8 G; 9 T; 0 other;
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28-FEB-2000; 2000US-0514707.
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                                     RNA splicing
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FILE REFERENCE: 1954-285
CURRENT APPLICATION NUMBER: US/09/536,393
CURRENT FILING DATE: 2000-03-28
EARLIER APPLICATION NUMBER: 60/127,529
EARLIER FILING DATE: 1999-04-02
NUMBER OF SEQ ID NOS: 31
SOFTWARE: PALENTIN Ver. 2.1
SEQ ID NO 19
LENGTH: 16
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US-09-536-393-20
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APPLICANT: Rossi, John J.
APPLICANT: Scherr, Michaela
APPLICANT: Scherr, Michaela
APPLICANT: Riggs, Arthur D.
TITLE OF INVENTION: Method for Identifying Accessible Binding Sites on
      Sequence 20, Application US/09536393
Patent No. 6562570
GENERAL INFORMATION:
APPLICANT: Rossi, John J.
APPLICANT: Scherr, Michaela
APPLICANT: Riggs, Arthur D.
TITLE OF INVENTION: Method for Identifying Accessible Binding Sites on FILE REFERENCE: 1954-285
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CURRENT APPLICATION NUMBER: US/09/536,393
                                                                                                                                                                                                                                           ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                       TYPE: DNA
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US-08-956-3078-6
US-08-956-3078-63
US-08-952-357-63
US-08-472-255A-139
US-08-472-255A-139
US-08-479-724A-139
US-08-479-724A-139
US-08-479-724B-15
US-08-479-724B-15
US-08-479-724B-15
US-08-479-724B-7
US-08-952-793-139
US-08-952-793-139
US-08-952-793-139
US-08-952-793-139
US-09-849-928-139
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US-09-849-928-15
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PCT-US96-09455A-165
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CURRENT FILING DATE: 2000-03-28

EARLIER APPLICATION NUMBER: 60/127,529

EARLIER FILING DATE: 1999-04-02

NUMBER OF SEQ ID NOS: 31

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 20

LENGTH: 16

TYPE: DNA

ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMATION: Description of Artificial Sequence: US-09-536-393-20
APPLICANT: TOGA, Alison
APPLICANT: Thery, Caroline
APPLICANT: Todd, Alison
APPLICANT: Todd, Alison
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Met
FILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
SOFTWARE: Patentin Ver. 2.1
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APPLICANT: Todd, Alison
APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
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Best Local Similarity
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LENGTH: 29
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CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OTHER INFORMATION:
OTHER INFORMATION:
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ORGANISM: Artificial Sequence
FEATURE:
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Pred. No. 4;
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Pred. No. 4.2;
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LENGTH: 29
SEQ ID NO 5
LENGTH: 31
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                                TITLE OF INVENTION: Zymogenic Nucleic Acid Detection Methods, And Related FILE OF INVENTION: Molecules And Kits FILE REFERENCE: JJ1770SequenceListing CURRENT APPLICATION NUMBER: US/09/253,955
CURRENT FILING DATE: 1999-02-22
EARLIER APPLICATION NUMBER: 60/076,899
EARLIER APPLICATION NUMBER: 60/076,899
EARLIER FILING DATE: 1998-03-05
NUMBER OF SEQ ID NOS: 11
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                         GENERAL INFORMATION:
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APPLICANT: Todd, Alison
APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
TITLE OP INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent No.
                                                                                                                                                                                                 APPLICANT: Todd, Alison V
APPLICANT: Fuery, Caroline J
APPLICANT: Cairns, Murray J
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 30
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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93.8%;
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                                                                   US-09-270-140A-42
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US-09-637-405-5
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                                                                                                                                                                    NUMBER OF SEQ ID NOS: 96
SOFTWARE: PatentIn Ver. 2
SEQ ID NO 42
LENGTH: 31
                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                           Patent No. 6361941 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 42, Application US/09270140A Patent No. 6361941
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Patent No. 62011
                                                                                                                                                                                                                                                                    APPLICANT: Todd, Alison
APPLICANT: Fuery, Caroline
APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&JT79
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EARLIER APPLICATION NUMBER: 09/253,955
EARLIER FILING DATE: 1999-02-22
NUMBER OF SEQ ID NOS: 11
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APPLICANT: Fuery, Caroline J
APPLICANT: Fuery, Caroline J
TITLE OF INVENTION: Zymogenic Nucleic Acid Detection Methods, And Related
TITLE OF INVENTION: Molecules And Kits
FILE REFERENCE: JJ1770SequenceListing
CURRENT APPLICATION NUMBER: US/09/637,405
                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: 60/079,651 PRIOR FILING DATE: 1998-03-27
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                                                                            FEATURE: OTHER INFORMATION: Description of Artificial Sequence: DNAzyme for OTHER INFORMATION: codon 542 - Cystic Fibrosis
                                                                                                                      TYPE: DNA
ORGANISM: Artificial Sequence
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Local Similarity
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Pred. No. 4
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                                                                 Query Match
Best Local S
Matches 15
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GENERAL INFORMATION:
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SEQ ID NO 48
LENGTH: 31
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APPLICANT: Cairns, Murray
TITLE ORIVERY, Catroline Applicant: Cairns, Murray
TITLE ORIVERTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: U611799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999.03-16
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                                                                                                                                                                                                                                                                                                    CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
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APPLICANT: Fuery, Caro
APPLICANT: Cairns, Mur
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                                                                                                                                                          FEATURE: OTHER INFORMATION: Description of Artificial Sequence: DNAzyme for OTHER INFORMATION: Codon 551 - wildtype
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                                                                                                                                                                                                                                    TYPE: DNA
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                                 RGGCTAGCTACAACGA 16
 GGGCTAGCTACAACGA 24
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                                                                   Conservative
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Pred. No. 4.2;
1; Mismatches
                                                                                        Score 15.6; DI
Pred. No. 4.2;
                                                                       Mismatches
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RESULT 13 US-09-270-140A-12

GENERAL INFORMATION:

Sequence 12, Application US/09270140A Patent No. 6361941

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; OTHER INFORMATION: Description of Artificial Sequence:DNAzyme for ; OTHER INFORMATION: Codon 51 - mutant (G to A) US-09-270-140A-51
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US-09-746-985B-5
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                                                                                                                              ; FEATURE:
; OTHER INFORMATION: PCR primer
US-09-746-985B-5
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SEQ ID NO 51
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SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 5
LENGTH: 31
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Todd, Alison
APPLICANT: Fuery, Caroline
APPLICANT: Cairins, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
                                                              Matches
                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/746,985B
CURRENT FILING DATE: 2000-12-21
PRIOR APPLICATION NUMBER: 60/076,899
PRIOR FILING DATE: 1998-03-05
                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Todd,
APPLICANT: Fuery
APPLICANT: Cairi
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                                                                                                                                                                                                                                                                                                                                                 FILE REFERENCE: SequenceListing
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                                                                                                                                                                                                TYPE: DNA
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                               1 RGGCTAGCTACAACGA 16
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Pred. No. 4.
                                                                                   Score 15.6;
Pred. No. 4.
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                                                                 Mismatches
                                                                                   4.2;
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RESULT 15
US-09-270-140A-19
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GENERAL INFORMATION:
APPLICANT: Todd, Alison
APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic
FILE REFERENCE: J&J1799
                                                                                                            Sequence 19, Application US/09270140A Patent No. 6361941
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LENGTH: 32
TYPE: DNA
ORGANISM: Artificial Sequence
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SEQ ID NO 12
LENGTH: 32
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TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&41799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
SOFTMARE: Patentin Ver. 2.1
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APPLICANT: Fuery, Caro
APPLICANT: Cairns, Mur
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TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
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Pred. No. 4.
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Pred. No. 4.2;
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             Acid base Diagnostic Methods
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GENERAL INFORMATION:
APPLICANT: Todd, Alison
APPLICANT: Toddy, Alison
APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic acid base Dis
FILE REFERENCE: J&1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
SOFTWARE: PatentIn Ver. 2.1
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US-09-270-140A-58
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US-09-270-140A-28
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SEQ ID NO 28
LENGTH: 32
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Patent No. 6361941
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SOFTWARE: PATENTIN VET. 2.1
SEQ ID NO 19
LENGTH: 32
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Best Local Similarity
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PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
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CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
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APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
TITLE OP INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
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93.8%;
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Pred. No. 4.2;
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US-09-270-140A-53
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                             SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 53
LENGTH: 34
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LENGTH: 32
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Best Local Similarity
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Best Local Similarity
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CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
                                                                                                                                 FILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
                                                                                                                                                                               APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
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TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
                                                                                                  PRIOR APPLICATION NUMBER: 60/079,651 PRIOR FILING DATE: 1998-03-27
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APPLICANT: Fuery, Caro
                                                                                  NUMBER OF SEQ ID NOS: 96
                                                                                                                                                                                                                                    APPLICANT: Todd, Alison
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ORGANISM: Artificial Sequence
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NO. 6361941
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93.8%;
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Pred. No. 4.
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Pred. No. 4.2;
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; OTHER INFORMATION: Description of Artificial Sequence: DNAzyme for ; OTHER INFORMATION: codon 08 - wildtype US-09-270-140A-53
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                                                  ; OTHER INFORMATION: Description of Artificial Sequence:DNAzyme US-09-270-140A-6
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US-09-270-140A-3
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Best Local Similarity
Matches 15; Conserv
Query Match
Best Local Similarity
                                                                                                                                                                   SOFTWARE: PatentIn Ver. SEQ ID NO 6
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Best Local Similarity
Matches 16; Conserv
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LENGTH: 35
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                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                     APPLICANT: Todd, Alison
APPLICANT: Fuery, Caroline
APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J199
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR PILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
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APPLICANT: Fuery, Caro
APPLICANT: Cairns, Mur
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                                                                                                         LENGTH: 35
TYPE: DNA
ORGANISM: Artificial Sequence
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97.5%;
93.8%;
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Pred. No. 4.
Score 15.6; DB Pred. No. 4.2;
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US-09-270-140A-39
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US-09-270-140A-31
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LENGTH: 35
TYPE: DNA
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SEQ ID NO 31
LENGTH: 35
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Best Local S
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Best Local Similarity
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                                                                                                                                                                                                                                                                         APPLICANT: Todd, Alison
APPLICANT: Puery, Caroline
APPLICANT: Puery, Caroline
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER: OF SEQ ID NOS: 96
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APPLICANT: Cairns, Murray
TITLE OP INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REPERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR PILICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
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                                                                                                                                               FEATURE:
OTHER INFORMATION: Description of Artificial Sequence:DNAzyme
OTHER INFORMATION: codon 74
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                                                                                Similarity
AGGCTAGCTACAACGA 23
                               RGGCTAGCTACAACGA 16
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                                                                Conservative
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                                                                            97.5%;
93.8%;
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93.8%;
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Pred. No. 4.2;
1; Mismatches
                                                                              Score 15.6; DB Pred. No. 4.2;
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; OTHER INFORMATION: Description of Artificial Sequence: DNAzyme ; OTHER INFORMATION: codon 215.- mutant US-09-270-140A-36
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US-09-270-140A-36
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APPLICANT: Fodd, Alison
APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
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LENGTH: 38
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LENGTH: 38
                                                                         Matches
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Best Local Similarity 93.8%;
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                                                                                     Query Match
Best Local Similarity
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TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
ERIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
SOFTWARE: Patentin Ver. 2.1
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CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
SOPTWARE: Patentin Ver. 2.1
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APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Todd, Alison
APPLICANT: Fuery, Caro
APPLICANT: Cairns, Mur
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OTHER INFORMATION: Description of Artificial Sequence: DNAzyme for OTHER INFORMATION: codon 215 - mutant (C to U or A)
                                                                                                                                                                                                                   TYPE: DNA
ORGANISM: Artificial Sequence
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GGGCTAGCTACAACGA
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                                                                                         Score 15.6;
Pred. No. 4
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RESULT 26 US-09-270-140A-91 · Sequence 91, Application US/09270140A

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PRIOR EILING DATE: 1998-03-16
PRIOR EILING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 94
LENGTU.
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Best Local S
Matches 15
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GENERAL INFORMATIC
                              Sequence 85, Application US/08849567A
Patent No. 6326174
GENERAL INFORMATION:
APPLICANT: Joyce, Gerald F.
APPLICANT: Breaker, Ronald R.
TITLE OF INVENTION: ENZYMATIC DNA MOLECULES
                                                                                                                                                                                                                                                                                        Best
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CURRENT FILING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILING DATE: 1998-03-27
NUMBER OF SEO ID NOS: 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILING DATE: 1999-03-16
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APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
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TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
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CURRENT APPLICATION NUMBER: US/08/849,567A
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ORGANISM: Artificial Sequence
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Pred. No. 4.
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Pred. No. 4
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US-08-849-567A-81
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SEQ ID NO 85
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SEQ ID NO 87
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                                                                GENERAL INFORMATION:
APPLICANT: Joyce, '
APPLICANT: Breaker
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                                                                                                            Sequence 81, Application US/08849567A Patent No. 6326174
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PRIOR APPLICATION NUMBER:
PRIOR FILING DATE: 1995-1
PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/08/849,567A
CURRENT FILING DATE: 1997-08-25
PRIOR APPLICATION NUMBER: PCT/US95/15580
PRIOR FILING DATE: 1995-12-01
PRIOR APPLICATION NUMBER: 08/472,194
PRIOR FILING DATE: 1995-06-07
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PRIOR APPLICATION NUMBER:
PRIOR FILING DATE: 1994-
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PRIOR FILING DATE: 1994-1
NUMBER OF SEQ ID NOS: 101
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APPLICANT: Breaker, Ronald R.
TITLE OF INVENTION: ENZYMATIC DNA MOLECULES
                                          APPLICANT: Joyce, Gerald F.
APPLICANT: Breaker, Ronald R.
TITLE OF INVENTION: ENZYMATIC DNA MOLECULES
FILE REFERENCE: SCR19438
CURRENT APPLICATION NUMBER: US/08/849,567A
CURRENT FILING DATE: 1997-08-25
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ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Artificial Sequence
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Pred. No. 4
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PRIOR APPLICATION NUMBER: PRIOR FILING DATE: 1995-1

1995-12-01

08/472,194 PCT/US95/15580

APPLICATION NUMBER:

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RESULT 32
US-09-637-405-8/c
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; TYPE: DNA
; ORGANISM: synthetic construct
US-09-253-955-8
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GENERAL INFORMATION:
APPLICANT: Todd, Alison V
APPLICANT: Fuery, Caroline J
APPLICANT: Cairns, Murray J
TITLE OF INVENTION: Zymogenic Nucleic Acid Detection Methods,
TITLE OF INVENTION: Zymogenic Sand Kits
FILE REFERENCE: J01770SequenceListing
CURRENT APPLICATION NUMBER: US/09/637,405
CURRENT FILING DATE: 2000-08-11
EARLIER APPLICATION NUMBER: 09/253,955
EARLIER FILING DATE: 1999-02-22
NUMBER OF SEQ ID NOS: 11
                                                                                                                                                                                                                               Sequence 8, Application US/09637405 Patent No. 6201113
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APPLICANT: Fuery, Caroline J
APPLICANT: Every, Caroline J
APPLICANT: Cairns, Murray J
TITLE OF INVENTION: Zymogenic Nucleic Acid Detection Methods, And Related
FILE OF INVENTION: Molecules And Kits
FILE REFERENCE: JJ1770SequenceListing
CURRENT APPLICATION NUMBER: US/09/253,955
CURRENT FILING DATE: 1999-02-22
EARLIER APPLICATION NUMBER: 60/076,899
EARLIER APPLICATION NUMBER: 60/076,899
EARLIER FILING DATE: 1998-03-05
NUMBER OF SEQ ID NOS: 11
SOFTMARE: Patentin Ver. 2.0
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PRIOR APPLICATION NUMBER: 08/
PRIOR FILING DATE: 1994-12-02
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93.8%;
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93.8%;
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Pred. No. 4.3;
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US-08-849-567A-86
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                                                                                                          FILE REFERENCE: SCR1943S
CURRENT APPLICATION NUMBER: US/08/849,567A
CURRENT FILING DATE: 1997-08-25
PRIOR APPLICATION NUMBER: PCT/US95/15580
PRIOR FILING DATE: 1995-12-01
PRIOR APPLICATION NUMBER: 08/472,194
PRIOR APPLICATION NUMBER: 08/472,194
PRIOR FILING DATE: 1995-06-07
PRIOR APPLICATION NUMBER: 08/349,023
PRIOR FILING DATE: 1994-12-02
                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: Joyce, Gerald F.
APPLICANT: Breaker, Ronald R.
APPLICANT: Breaker, RONALD R.
TITLE OF INVENTION: ENZYMATIC DNA MOLECULES
                                                     SOFTWARE: 1
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                                                                                                                                                                                                                                                                                                                                                            Sequence 86, Application US/08849567A Patent No. 6326174
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Fuery, Caroline J
APPLICANT: Cairns, Murray J
TITLE OF INVENTION: Zymogenic Nucleic Acid Detection Methods, And Related
TITLE OF INVENTION: Molecules And Kits
FILE REFERENCE: SequenceListing
CURRENT APPLICATION NUMBER: US/09/746,985B
CURRENT FILING DATE: 2000-12-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/
PRIOR FILING DATE: 1998-03-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Ver.
                                                                                          NUMBER OF SEQ ID NOS:
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APPLICANT: Fuery, Caroli
APPLICANT: Cairns, Murra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
TYPE: DNA
ORGANISM: Artificial Sequence
                   TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 50
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97.5%;
Local Similarity 93.8%;
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Pred. No. 4.3;
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; FEATURE: ; OTHER INFORMATION: Description of Artificial Sequence: DNA enzyme US-08-849-567A-86

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11

AGGCTAGCTACAACGA 26

Matches

15;

Conservative

1 RGGCTAGCTACAACGA 16

Query Match Best Local Similarity

97.5%;

Score 15.6; Pred. No. 4.

В

4.

Length 51;

Indels

0

Gaps

0;

Mismatches

RESULT 35

Sequence 2, Application US/09253955 Patent No. 6140055

GENERAL INFORMATION:

APPLICANT: Todd, Alison V

SEQ ID NO 2 LENGTH: 59

TYPE: DNA
ORGANISM: synthetic construct
-09-253-955-2

Matches Query Match

Local

l Similarity 15; Conserv

Conservative

1;

Mismatches

Pred. Score 15.6; Pred. No. 4

DB 3;

Length 59;

0

0

97.5%;

APPLICANT: Fuery, Caroline J
APPLICANT: Cairns, Murray J
APPLICANT: Cairns, Murray J
ITIE OF INVENTION: Zymogenic Nucleic Acid Detection Methods, And Related
TITLE OF INVENTION: Molecules And Kits
FILE REFERENCE: JJ1770SequenceListing
CURRENT APPLICATION NUMBER: US/09/253,955
CURRENT FILING DATE: 1999-02-22
EARLIER APPLICATION NUMBER: 60/076,899
EARLIER APPLICATION NUMBER: 60/076,899
EARLIER FILING DATE: 1998-03-05
NUMBER OF SEQ ID NOS: 11
SOFTWARE: Patentin Ver. 2.0

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                                                                                                                  ; TYPE: DNA
; ORGANISM: synthetic construct
US-09-637-405-2
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                                                                                                                                                                       SEQ ID NO 2
LENGTH: 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                APPLICANT: Todd, Alison V
APPLICANT: Fuery, Caroline J
APPLICANT: Every, Caroline J
APPLICANT: Every, Caroline J
APPLICANT: Every, Caroline J
APPLICANT: Cairne, Murray J
TITLE OF INVENTION: Zymogenic Nucleic Acid Detection Methods, And Related
TITLE OF INVENTION: Molecules And Kits
FILE OF INVENTION: Molecules And Kits
FILE REPERSINCE: J11770SequenceListing
CURRENT APPLICATION NUMBER: US/09/637,405
CURRENT FILING DATE: 2000-08-11
EARLIER APPLICATION NUMBER: 09/253,955
EARLIER FILING DATE: 1999-02-22
NUMBER OF SEQ ID NOS: 11
                                                                           Query Match
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                                                           Local Similarity
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  RGGCTAGCTACAACGA 16
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milarity 93.8%;
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RESULT 39 US-09-637-405-10/c ^~~~ence 10, Application US/09637405

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US-09-746-985B-2/c
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US-09-253-955-10/c
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                                                                                                                                        ORGANISM: synthetic construct US-09-253-955-10
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SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 2
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APPLICANT: Todd, Alison V
APPLICANT: Fuery, Caroline J
APPLICANT: Cairns, Murray J
APPLICANT: Cairns, Murray J
APPLICANT: Cairns, Murray J
TITLE OF INVENTION: Zymogenic Nucleic Acid Detection Methods, And Related
TITLE OF INVENTION: Molecules And Kits
FILE REFERENCE: SequenceListing
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                                                                                                                                                                                                                                         GENERAL INFORMATION:

APPLICANT: Todd, Alison V
APPLICANT: Todd, Alison V
APPLICANT: Tudd, Alison V
APPLICANT: Cairns, Murray J
TITLE OF INVENTION: Zymogenic Nucleic Acid Detection Methods, And Related
TITLE OF INVENTION: Molecules And Kits
TITLE OF INVENTION: Molecules And Kits
FILE REFERENCE: JU1770SequenceListing
CURRENT APPLICATION NUMBER: US/09/253,955
CURRENT APPLICATION NUMBER: 60/076,899
EARLIER APPLICATION NUMBER: 60/076,899
EARLIER FILING DATE: 1998-03-05
NUMBER OF SEQ ID NOS: 11
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Best Local Similarity
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LENGTH: 60
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Patent No. 6140055
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CURRENT FILING DATE: 2000-12-21
PRIOR APPLICATION NUMBER: 60/076,899
PRIOR FILING DATE: 1998-03-05
                                                                                    Query Match
Best Local
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ORGANISM: Artificial Sequence
FEATURE:
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                                                                                                                                                                              TYPE: DNA
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; Patent No. 6201113
; GRNERAL INFORMATION:
APPLICANT: INFORMATION:
APPLICANT: Todd, Alison V
APPLICANT: Fuery, Caroline J
APPLICANT: Fuery, Caroline J
APPLICANT: Cairns, Murray J
TITLE OF INVENTION: Molecules And Kits
TITLE OF INVENTION: Molecules And Kits
FILE REFERENCE: JJ1770SequenceListing
CURRENT FILING DATE: 2000-08-11
CURRENT FILING DATE: 2000-08-11
EARLIER APPLICATION NUMBER: 09/253,955
EARLIER APPLICATION SUMBER: 09/253,955
INUMBER OF SEQ ID NOS: 11
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 10
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Job time : 60 secs
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; TYPE: DNA
; ORGANISM: Artificial Sequence
; PEATURE:
; PEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:3" zymogene
; OTHER INFORMATION: primer eK42Dz2
US-09-270-140A-95
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TYPE: DNA
ORGANISM: Bynthetic construct
US-09-637-405-10
                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Todd, Alison
APPLICANT: Fuery, Caroline
APPLICANT: Cairns, Murray
TITLE OF INVENTION: Catalytic Nucleic Acid base Diagnostic Methods
FILE REFERENCE: J&J1799
CURRENT APPLICATION NUMBER: US/09/270,140A
CURRENT FILLING DATE: 1999-03-16
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR APPLICATION NUMBER: 60/079,651
PRIOR FILLING DATE: 1998-03-27
NUMBER OF SEQ ID NOS: 96
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 95
                                                                                                                                                                 Query Match 97.5%; Score 15.6; DB 4; Best Local Similarity 93.8%; Pred. No. 4.4; Matches 15; Conservative 1; Mismatches 0;
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                                                                                                           NUMBER OF SEQ ID NOS: 49
SOFTWARE: PatentIn version 3.0
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Query Match
Best Local Similarity
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OTHER INFORMATION: Description
-09-877-526A-21
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PRIOR FILING DATE: 2000-03-06
NUMBER OF SEO TO NOT
                                                                                                                                                                                           APPLICANT: Blatt, Larry
APPLICANT: Vaish, Narenda
TITLE OF INVENTION: A process for the Detection of Nucleic Acid Using Nucleic Acid
FILE REFERENCE: MSHB00-816-C (700/002)
CURRENT APPLICATION NUMBER: US/09/877,526A
CURRENT FILING DATE: 2001-03-06
CURRENT FILING DATE: 2001-03-06
                                                                                                                                                                                                                                                                                                                                    APPLICANT: Ribozyme Pharmaceuticals, APPLICANT: Usman, Nassim APPLICANT: McSwiggen, Jim
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US-09-730-289B-3172
US-09-730-289B-3173
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US-09-866-316B-15
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APPLICANT: Jarvis, Thale
APPLICANT: Woolf, Todd
APPLICANT: Matulic-Adamic, Jasenka
APPLICANT: Matulic-Adamic, Jasenka
TITLE OF INVENTION: Nucleic Acid Molecules with No.
TITLE OF INVENTION: Modulating Gene Expression
FILE REFERENCE: MBHB00,873-H 500/004
CURRENT APPLICATION NUMBER: US/09/866,316B
CURRENT FILING DATE: 2002-03-05
PRIOR APPLICATION NUMBER: US/99/103,656
PRIOR FILING DATE: 1998-06-23
PRIOR FILING DATE: 1998-06-23
PRIOR PRILING DATE: 1998-04-20
NUMBER OF SEQ ID NOS: 15
SOFTWARE: PatentIn version 3.0
SEQ ID NO 15
LENGTH: 16
TYPE: DNA
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                                                                                                                 GENERAL INFORMATION:

APPLICANT: Ribozyme Pharmaceuticals, Inc.

APPLICANT: Stinchcomb, Dan

APPLICANT: Stinchcomb, Dan

APPLICANT: McSwiggen, Jim

APPLICANT: McSwiggen, Jim

ITILE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases of INTLE OF INVENTION: Levels of NF-Kappa B

TITLE OF INVENTION: Levels of NF-Kappa B

PILE REFERENCE: 400/022 (MBHB00-812-D)

CURRENT APPLICATION NUMBER: US/9/864,785

CURRENT FILING DATE: 2001-05-23

NUMBER OF SEQ ID NOS: 3929

RUMBER OF SEQ ID NOS: 3929
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SEQ ID NO 3928
LENGTH: 16
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Patent No. US20020177568A1
GENERAL INFORMATION:
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APPLICANT: Thompson, Jim
APPLICANT: McSwiggen, Jim
APPLICANT: McSwiggen, Jim
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TYPE: DNA ORGANISM: Artificial Sequence FEATURE:
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Zwick, Michael
Jarvis, Thale
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Karpeisky, Alex
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US-09-992-160-21
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APPLICANT:
APPLICANT:
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TITLE OF INVENTION: Method and Reagent for Treatment of Cardiac Disease
FILE REFERENCE: Method and Reagent for Treatment of Cardiac Disease
CURRENT APPLICATION NUMBER: US/09/730,289B
CURRENT APPLICATION NUMBER: US/09/730,289B
CURRENT FILING DATE: 200-12-05
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CURRENT APPLICATION NUMBER: US/09/992,160
CURRENT FILING DATE: 2001-11-05
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PRIOR FILING DATE: 1999-12-06
NUMBER OF SEQ ID NOS: 3897
SOFTWARE: Patentin version 3.0
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TITLE OF INVENTION: Nucleic Acid Sensor Molecules
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                                                                                                LENGTH: 16
TYPE: DNA
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TYPE: DNA
ORGANISM: Artificial Sequence
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Zinnen, Shawn
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Chowrira, Bharat
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tive 0; Mismatches
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US-09-877-478-6585
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; OTHER INFORMATION: Description of Artificial Sequence: US-09-780-533A-6679
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APPLICANT: McSwiggen, Jim
APPLICANT: McSrissey, Dave
TITLE OF INVENTION: Method and Reagent for Inhibiting Hepatitis:
TITLE OF INVENTION: Method and Reagent for Inhibiting Hepatitis:
CURRENT APPLICATION NUMBER: US/09/877,478
CURRENT FILING DATE: 2001-12-31
PRIOR APPLICATION NUMBER: US 07/882,712
PRIOR APPLICATION NUMBER: US 07/882,712
PRIOR PILING DATE: 1092-05-14
PRIOR APPLICATION NUMBER: US 09/531,025
PRIOR FILING DATE: 2000-03-20
PRIOR FILING DATE: 2000-03-20
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                                       PRIOR APPLICATION NUMBER: US 09/696,347
PRIOR FILING DATE: 2000-10-24
PRIOR APPLICATION NUMBER: US 08/193,627
PRIOR FILING DATE: 1994-02-07
PRIOR APPLICATION NUMBER: US 08/433,993
PRIOR APPLICATION NUMBER: US 08/434,504
PRIOR APPLICATION NUMBER: US 08/434,504
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APPLICANT: McSwiggen, Jim
APPLICANT: Chowrira, Bharat
APPLICANT: Haeberli, Pete
TITLE OF INVENTION: Method and Reagent for the Inhibition
FILE REFERENCE: MBHB00,878-A (400/01)
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APPLICANT: Blatt, Larry
APPLICANT: McSwiggen, Jim
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                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: US 09/636,385
PRIOR FILING DATE: 2000-08-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Ribozyme Pharmaceuticals, APPLICANT: Draper, Kenneth APPLICANT: Blatt, Larry
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                       FILING DATE: 1995-05-04
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ive 0; Mismatches
09/436,430
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US-09-848-754A-9645
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Publication No. US20030073207A1

GENERAL INFORMATION:
APPLICANT: Ribozyme Pharmaceuticals, Inc.
TITLE OF INVENTION: Levels of Epidermal Growth Factor Receptors
FILE REFERENCE: MBHB00-958-I (400/018)

FULE REFERENCE: MBHB00-958-I (400/018)

CURRENT APPLICATION NUMBER: US/09/848,754A

CURRENT FILING DATE: 2001-05-03

NUMBER OF SEQ ID NOS: 9645

SOFTWARE: Patentin version 3.0

SEQ ID NO 9645
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Best Local Similarity
Matches 16; Conserv
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GENERAL INFORMATION:
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                                                                                                         SOFTWARE: PatentIn version 3.0 SEQ ID NO 2991
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SOFTWARE: PatentIn version
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PRIOR FILING DATE: 2000-03-02
NUMBER OF OTHER PRIOR PRIO
                                                                                                                                                                                                                                                                                                            FILE REFERENCE: MBHB00-955-A (400/008)
CURRENT APPLICATION NUMBER: US/09/776,474
CURRENT FILING DATE: 2001-02-02
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TITLE OF INVENTION: Method and Reagent for the Inhibition of Checkpoint Kinase-1 (CHR
TITLE OF INVENTION: Enzyme
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TYPE: DNA
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APPLICANT: Holman, Patricia
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ORGANISM: Artificial Sequence
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100.0%; Pred. No. 23;
tive 0; Mismatches
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APPLICANT: McSwiggen, Jim
APPLICANT: McSwiggen, Jim
FILE OF INVENTION: Method and Reagent for the
FILE REFERENCE: 400/010
CURRENT APPLICATION UNMBER: US/09/780,164
CURRENT FILING DATE: 2001-02-09
PRIOR APPLICATION NUMBER: 60/185,516
PRIOR FILING DATE: 2000-02-28
NUMBER OF SEQ ID NOS: 2603
SOFTWARE: PatentIn version 3.0
SECTIVARE: PatentIn version 3.0
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US-09-780-164-2602
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Publication No. US20030092003A1
GENERAL INFORMATION:
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 4549
LENGTH: 16
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Best Local Similarity
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Publication No. US20030092646A1
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Best Local Similarity
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TITLE OF INVENTION: Method and Reagent for the Treatment
FILE REFERENCE: MBHB00,918-A 400/027
CURRENT APPLICATION NUMBER: US/09/930,423
CURRENT FILING DATE: 2001-08-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Ribozyme Pharmaceuticals, APPLICANT: Blatt, Larry APPLICANT: McSwiggen, Jim
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APPLICANT: Blatt, Larry
APPLICANT: McSwiggen, Jim
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                                                                                                         OTHER INFORMATION: Description of Artificial Sequence:
                                                                                                                      FEATURE:
                                                                                                                                        ORGANISM: Artificial Sequence
                                                                                                                                                          TYPE: DNA
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US-10-366-191-14
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US-09-827-395A-2617
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 14
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Publication No. US20030228590A1
GENERAL INFORMATION:
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Best Local Similarity
Matches 16; Conserv
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                                                                                                               Query Match
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Publication No. US20030113891A1
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APPLICANT: Haeberli, Peter
APPLICANT: Haeberli, Peter
TITLE OF INVENTION: Antibodies Having Specificity for Nucleic Acids
FILE REFERENCE: 02-030-A (900/047)
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PRIOR FILING DATE: 2001-02-09
PRIOR APPLICATION NUMBER: 60/181,797
PRIOR FILING DATE: 2000-02-11
NUMBER OF SEQ ID NOS: 2617
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APPLICANT: James McSwiggen
APPLICANT: Bharat Chowrira

TITLE OF INVENTION: Method and Reagent for the Inhibition of NOGO and NOGO Receptor FILE REFERENCE: MBHB00-878-C (400/017)
CURRENT APPLICATION NUMBER: US/09/827,395A
CURRENT FILING DATE: 2001-04-05
CURRENT FILING DATE: 2001-04-05
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                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/10/366,191
CURRENT FILING DATE: 2003-02-12
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RESULT 14

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RESULT 16
US-09-745-237A-4549
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; Publication No. US20030143708A1
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US-10-435-044A-20
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LENGTH: 16
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CURRENT FILING DATE: 2003-05-12
PRIOR APPLICATION NUMBER: US 09/536,393
PRIOR FILING DATE: 2000-03-28
PRIOR APPLICATION NUMBER: US 60/127,529
PRIOR APPLICATION NUMBER: US 60/127,529
PRIOR FILING DATE: 1999-04-02
NUMBER OF SEQ ID NOS: 31
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CURRENT APPLICATION NUMBER: US/10/435,044A
CURRENT FILING DATE: 2003-05-12
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PRIOR APPLICATION NUMBER: US 60/127,529
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APPLICANT: Scherr, Michaela
APPLICANT: Riggs, Arthur D
TITLE OF INVENTION: Method For Identifying Accessible Binding Sites on
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APPLICANT: Riggs, Arthur D
TITLE OF INVENTION: Method For Identifying Accessible Binding Sites on
FILE REFERENCE: 1954-285ii
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APPLICANT: Scherr, Micha
APPLICANT: Riggs, Arthu
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ORGANISM: Artificial Sequence
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US-10-279-401-11
; Sequence 11, Application US/10279401
; Publication No. US20030140362A1
; Publication No. US20030140362A1
; GENERAL INFORMATION:
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APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: Blatt, Larry
APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: Method and Reagent for the Treatment of Alzheimer's Disease
FILE REFERENCE: 400/007 (MBHB00-918-A)
FILE REPERIOR: 400/007 (MBHB00-918-A)
CURRENT APPLICATION NUMBER: US/09/745,237A
CURRENT FILING DATE: 2002-04-15
NUMBER OF SEQ ID NOS: 4550
SOFTWARE: PatentIn version 3.0
SEQ ID NO 4549
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TITLE OF INVENTION: Method and Reagent for
TITLE OF INVENTION: (GRID) Gene
FILE REFERENCE: MBHB00-901-A (400/013)
CURRENT APPLICATION NUMBER: US/09/792,818
CURRENT FILING DATE: 2001-02-23
NUMBER OF SEQ ID NOS: 2304
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Ribozyme Pharmaceuticals, Inc. APPLICANT: Jarvis, Thale APPLICANT: Von Carlowitz, Ira APPLICANT: McSwiggen, Jim
                                                                APPLICANT: Ribozyme Pharmaceuticals Inc.
APPLICANT: Macejak, Dennis
APPLICANT: Lee, Patrice
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TITLE OF INVENTION: In Vivo Models For Screening Inhibitors of Hepatitis FILE REFERENCE: 400/066 (MBHB01-1336-B)
CURRENT APPLICATION NUMBER: US/10/279,401
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Hamblin, Paul
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100.0%; Pred. No. 23;
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US-10-201-389A-13
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            APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: McSwiggen, James
APPLICANT: McSwiggen, James
TITLE OF INVENTION: Nucleic Acid Treatment of
FILE REFERENCE: 400/057 (MBHB01-1158-A)
CURRENT APPLICATION NUMBER: US/10/238,700
CURRENT FILING DATE: 2002-09-18
PRIOR APPLICATION NUMBER: PCT/US 02/16840
PRIOR FILING DATE: 2002-05-29
PRIOR FILING DATE: 2002-05-29
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 11
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Best Local (
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Best Local Similarity
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PRIOR FILING DATE: 2001-10-24
PRIOR APPLICATION NUMBER: PCT/US02/09187
PRIOR FILING DATE: 2002-03-26
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PRIOR APPLICATION NUMBER:
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NUMBER OF SEQ ID NOS: 23
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CURRENT FILING DATE: 2002-07-22
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TITLE OF INVENTION: ENZYMATIC NUCLEIC ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: DNAzyme Motif
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FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: DNAzyme motif
PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
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Pred. No. :
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RESULT 21
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                                                                                        PRIOR APPLICATION NUMBER: US 60/315,315
PRIOR FILING DATE: 2001-08-28
NUMBER OF SEQ ID NOS: 2678
SOFTWARE: Patentin version 3.0
SEQ ID NO 2677
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SOFTWARE: PatentIn ver
SEQ ID NO 445
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Tocal Similarity
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NUMBER OF SEQ ID NOS: 4666
SOFTWARE: PatentIn version 3.0
SEQ ID NO 4666
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Publication No. US20030191077A1
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                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
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                                                                                                                                                                                       APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: Fosnaugh, Kathy
APPLICANT: McSwiggen, Jim
APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: METHOD AND REAGENT FOR THE TREATMENT OF ASTHMA AND ALLERGIC CONDITILE REFERENCE: 400/056 (MBHB01-1110)
CURRENT PEPLICATION NUMBER: US/10/230,006
CURRENT FILING DATE: 2002-11-18
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                                  ORGANISM: Artificial Sequence
                                                          LENGTH: 16
TYPE: DNA
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INFORMATION: Description of Artificial Sequence:
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Pred. No. 23;
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                                                               ; OTHER INFORMATION: Description of Artificial US-10-151-116-12
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LENGTH: 16
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Best Local Similarity
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                             Query Match
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CURRENT FILING DATE: 2002-05-17
PRIOR APPLICATION NUMBER: 60/362,016
PRIOR FILING DATE: 2002-03-06
PRIOR PPLICATION NUMBER: 60/292,217
PRIOR PILING DATE: 2001-05-18
NUMBER OF SEQ ID NOS: 12
                                                                                                                                                                                                                                                                                                              APPLICANT: Beigelman, Leo TITLE OF INVENTION: Conjugates and Compositions for Cellular Delivery FILE REFERENCE: MBHB 01,639-B (600/020)
                                                                                                                                                                                                                                                                                                                                               APPLICANT: Ribozyme Pharmaceuticals, APPLICANT: Matulic-Adamic, Jasenka APPLICANT: Beigelman, Leo
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SOFTWARE: PatentIn version 3.0
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CURRENT APPLICATION NUMBER: US/10/306,747A
CURRENT FILING DATE: 2002-11-27
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TITLE OF INVENTION: Method and Reagent for the Modulation
TITLE OF INVENTION: Conditions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Sirna Therapeutics,
APPLICANT: Sandberg, Jennifer
APPLICANT: Pavco, Pam
                                                                                         TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
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Local Similarity 100 1es 16; Conservative
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100.0%; Pred. No. 23;
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Score 15.6; DE ;; Pred. No. 23; 0; Mismatches
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Pred. No. 23;
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GENERAL INFORMATION:
APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: Nucleic acid treatment of
TITLE OF INVENTION: HER2
FILE REPERENCE: MBHBD1-1653-A (400/014)
FILE REPERENCE: MBHBD1-1653-A (400/014)
CURRENT APPLICATION NUMBER: US/10/163,552
CURRENT FILING DATE: 2002-06-06
CURRENT FILING DATE: 2002-06-06
SEQ ID NOS: 1997
SOFTWARE: PACENTIN VERSION 3.0
SEQ ID NO 1997
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US-10-163-552-1997
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US-10-156-306-8013
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                                                    RESULT 27
US-10-157-580A-170
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SOFTWARE: Patentin version 3.0
SEQ ID NO 8013
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Best Local
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GENERAL INFORMATION:
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Sequence 170, Application US/10157580A publication No. US20030124513A1 GENERAL INFORMATION:
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Best Local Similarity
                                                                                                                                                                                                Matches
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APPLICANT: McSwiggen, James
TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
TITLE OF INVENTION: Levels of IKK-Gamma and PKR
FILE REFERENCE: MBHB01-664-A (400/050)
CURRENT APPLICATION NUMBER: US/10/156,306
CURRENT FILING DATE: 2002-05-28
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o. US20030105051A1
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100.0%; Pred. No. 23;
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100.0%; Pred. No. 23;
live 0; Mismatches
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**PLICANT: Blatt, Lewrinder

**APPLICANT: Blatt, Lawrence

** TITLE OF INVENTION: CONJUGATES AND COMPOSITIONS FOR CELLULAR DELIVERY

**FILE REFERENCE: MBHB01-882-B (600/022)

**FILE REFERENCE: MBHB01-882-B (600/022)

**CURRENT APPLICATION NUMBER: US/10/201,394A

**CURRENT APPLICATION NUMBER: US/10/201,394A

**CURRENT FILING DATE: 2002-07-22

**NUMBER OF SEQ ID NOS: 22

**SOFTWARE: PatentIn version 3.0

**SEQ ID NO 13

**LENCTH: 16
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US-10-201-394A-13
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US-10+277-494-334
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TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases TITLE OF INVENTION: Related To Levels Of HIV FILE REPERENCE: MBHB01-665-A (400/051)
CURRENT APPLICATION NUMBER: US/10/157,580A
CURRENT FILING DATE: 2002-08-30
NUMBER OF SEQ ID NOS: 170
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APPLICANT: McSwiggen, Jim
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           APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: Nucleic Acid Treatment of Diseases
TITLE OF INVENTION: Epidermal Growth Factor Receptors
FILE REFERENCE: MBHB00-958-K (400/064)
CURRENT APPLICATION NUMBER: US/10/277,494
CURRENT FILING DATE: 2002-10-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA ORGANISM: Artificial Sequence
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NUMBER OF SEQ ID NOS:
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o. US20030186909A1
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FEATURE:
OTHER INFORMATION:
US-10-277-494-336
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US-10-277-494-336
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US-10-277-494-335
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                                                                                                                                 APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: Nucleic Acid Treatment of Diseases or conditions Related To Level
TITLE OF INVENTION: Epidermal Growth Factor Receptors
FILE REFERENCE: MBHB00-958-K (400/064)
CURRENT APPLICATION NUMBER: US/10/277,494
CURRENT APPLICATION NUMBER: US/10/277,494
CURRENT FILING DATE: 2002-10-21
NUMBER OF SEQ ID NOS: 446
SOFTWARE: Patentin version 3.0
SEQ ID NO 336
LENGTH: 23
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Best Local Similarity
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CURRENT FILING DATE: 2002-10-21
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SOFTWARE: PatentIn version 3.0
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SEQ ID NO 334
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                                                                                  LENGTH: 23
TYPE: DNA
ORGANISM: Artificial Sequence
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Score 15.6; DB Pred. No. 23;
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US-10-277-494-338
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                                 Best Local
Matches 1
                                                                                                                                                                                           CURRENT FILING DATE: 2002-10-3
NUMBER OF SEQ ID NOS: 446
SOFTWARE: PatentIn version 3.0
SEQ ID NO 338
LENGTH: 23
                                                                                                                                                                                                                                                                                                                                                                                             Sequence 338, Applic Publication No. US20 GENERAL INFORMATION:
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CURRENT FILING DATE: 2002-10-21
NUMBER OF SEQ ID NOS: 446
SOFTWARE: PatentIn version 3.0
SEQ ID NO 337
LENGTH: 23
TYPE: DNA
                                                                    Query Match
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Best Local
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Publication No. US20030186909A1
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TITLE OF INVENTION: Nucleic Acid Treatment of Diseases or conditions Related To Level
TITLE OF INVENTION: Epidermal Growth Factor Receptors
FILE REFERENCE: MBHB00-958-K (400/064)
CURRENT APPLICATION NUMBER: US/10/277,494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Nucleic Acid Treatment of Diseases or conditions Related To Level TITLE OF INVENTION: Epidermal Growth Factor Receptors
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APPLICANT: McSwiggen, Jim
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APPLICANT: McSwiggen, Jim
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                                                                                                                                                   TYPE: DNA
ORGANISM: Artificial Sequence
                                                                                                                        OTHER INFORMATION: Description of Artificial
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                                 Score 15.6; I
Pred. No. 23;
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RESULT 34 US-10-277-494-339

Sequence 339, A Publication No.

Application US/10277494 o. US20030186909A1

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RESULT 35
US-10-277-494-340
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CURRENT APPLICATION NUMBER: US/10/277,494
CURRENT FILING DATE: 2002-10-21
NUMBER OF SEQ ID NOS: 446
SOFTWARE: PatentIn version 3.0
SEQ ID NO 340
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Best Local S
Matches 15
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publication No. US20030186909A1
GENERAL INFORMATION:
APPLICANT: Ribozyme Pharmaceuticals,
APPLICANT: McSwiggen, Jim
APPLICANT: McSwiggen, Jim
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Best Local Similarity
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                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                           Sequence 341, Application US/10277494
Publication No. US20030186909A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: Nucleic Acid Treatment of Diseases or conditions Related To
TITLE OF INVENTION: Epidermal Growth Factor Receptors
SEQ ID NO 341
                APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: Nucleic Acid Treatment of Diseases or conditions Related To Level
TITLE OF INVENTION: Epidermal Growth Factor Receptors
FILE REFERENCE: MBH800-958-K (400/064)
CURRENT APPLICATION NUMBER: US/10/277,494
CURRENT FILING DATE: 2002-10-21
NUMBER OF SEQ ID NOS: 446
SOFTWARE: PatentIn version 3.0
                                                                                                                                                     APPLICANT: Ribozyme Pharmaceuticals, Inc. APPLICANT: McSwiggen, Jim
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Pred. No. 23;
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Pred. No. 23
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OTHER INFORMATION: Description US-10-277-494-341
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
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Best Local Similarity
                                                                                                                    SOFTWARE: PatentIn version 3.0
SEQ ID NO 343
LEUGTH: 23
TYPE: DNA
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                                                                                                                                                                                                                                                                                                                 Sequence 343, Application US/10277494 Publication No. US20030186909A1
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CURRENT APPLICATION NUMBER: US/10/277,494
CURRENT FILING DATE: 2002-10-21
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TITLE OF INVENTION: Nucleic Acid Treatment of Diseases
TITLE OF INVENTION: Epidermal Growth Factor Receptors
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Matches
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TYPE: DNA
ORGANISM: Artificial Sequence
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ORGANISM: Artificial Sequence
FEATURE:
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                                                                        OTHER INFORMATION: Description of Artificial Sequence:
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Search completed: January 21, 2004, 08:22:20 Job time : 157 secs
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US-10-277-494-345
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US-10-277-494-344
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US-10-277-494-344
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APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: Nucleic Acid Treatment of Diseases or conditions Related To Level
TITLE OF INVENTION: Epidermal Growth Factor Receptors
FILE REFERENCE: MBHB00-958-K (400/064)
CURRENT APPLICATION NUMBER: US/10/277,494
CURRENT APPLICATION NUMBER: US/10/277,494
CURRENT FILING DATE: 2002-10-21
NUMBER OF SEQ ID NOS: 446
SOFTWARE: PatentIn version 3.0
SEQ ID NO 345
LENGTH: 23
TYPE: DNA
ORGANISM: Artificial Sequence
PEATURE:
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APPLICANT: McSwiggen, Jim
TITLE OF INVENTION: Nucleic Acid Treatment of Diseases or conditions Related To Level
TITLE OF INVENTION: Epidermal Growth Factor Receptors
FILE REFERENCE: MBHB00-958-K (400/064)
CURRENT APPLICATION NUMBER: US/10/277,494
CURRENT FILING DATE: 2002-10-21
NUMBER OF SEQ ID NOS: 446
SOFTWARE: Patentin version 3.0
SEQ ID NO 344
LENGTH: 23
                                                                                                                                                                              Query Match 97.9
Best Local Similarity 93.9
Matches 15; Conservative
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GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
FEATURE:
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Local Similarity 93.8%; Pred. No. 23;
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o. US20030186909A1
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93.8%; Pred. No. 23;
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